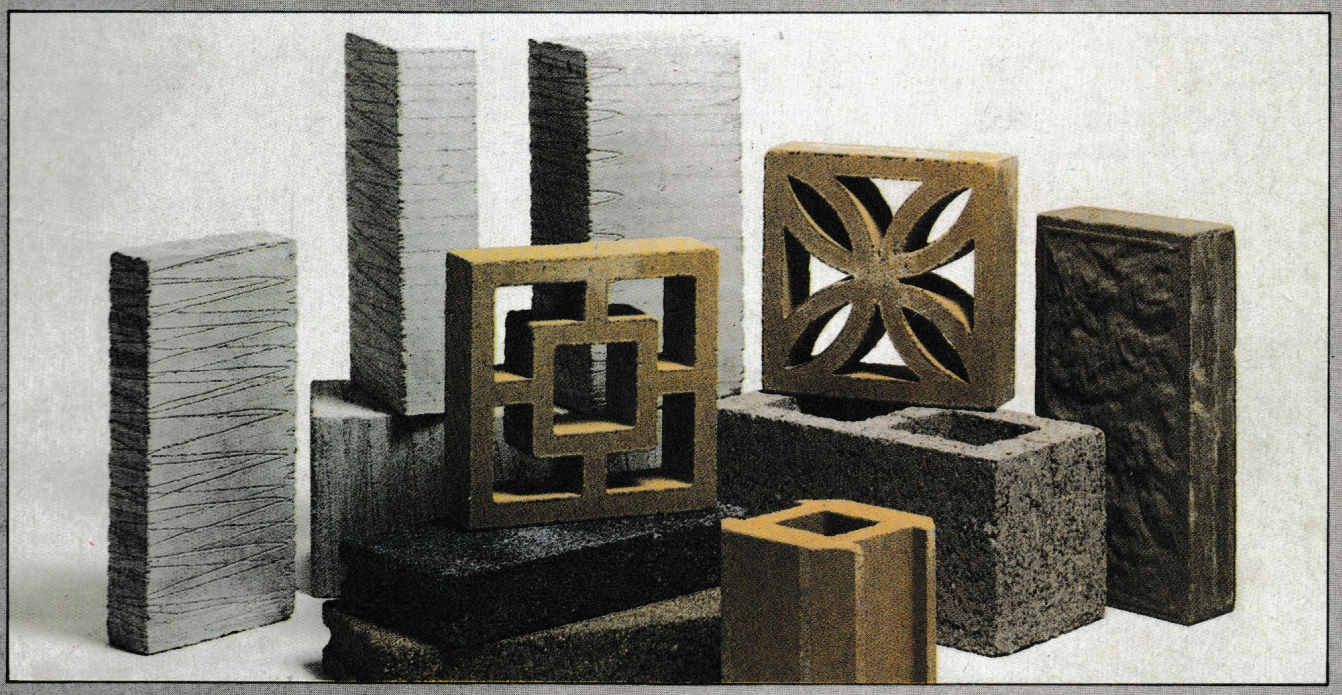
A Marshall Cavendish Publication in weekly parts

Part 13

THE KNACK

The complete manual of DIY skills, projects and home ideas



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THE KNACK

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The index

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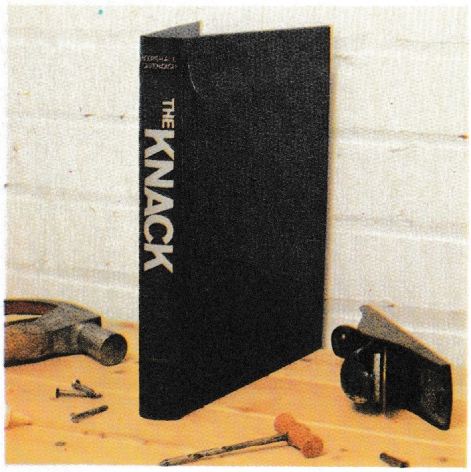

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Basic blockbuilding

● Types of concrete blocks ● Calculating quantities ● Mortar mixes ● Building a screen block wall ● Constructing a supporting pier ● Conventional blockbuilding

Concrete building blocks are a fairly recent development in the building industry. Lighter, cheaper and often easier to work with than bricks, they have become popular for all kinds of indoor and outdoor projects.

Blocks are laid using all the usual bricklaying tools and many of the same techniques. But the key to successful blocklaying is ensuring that your project is structurally sound.

In the case of a garden wall or partition, the guidelines on structural strength are not hard to follow. Loadbearing walls in blockwork are covered further on in the course.

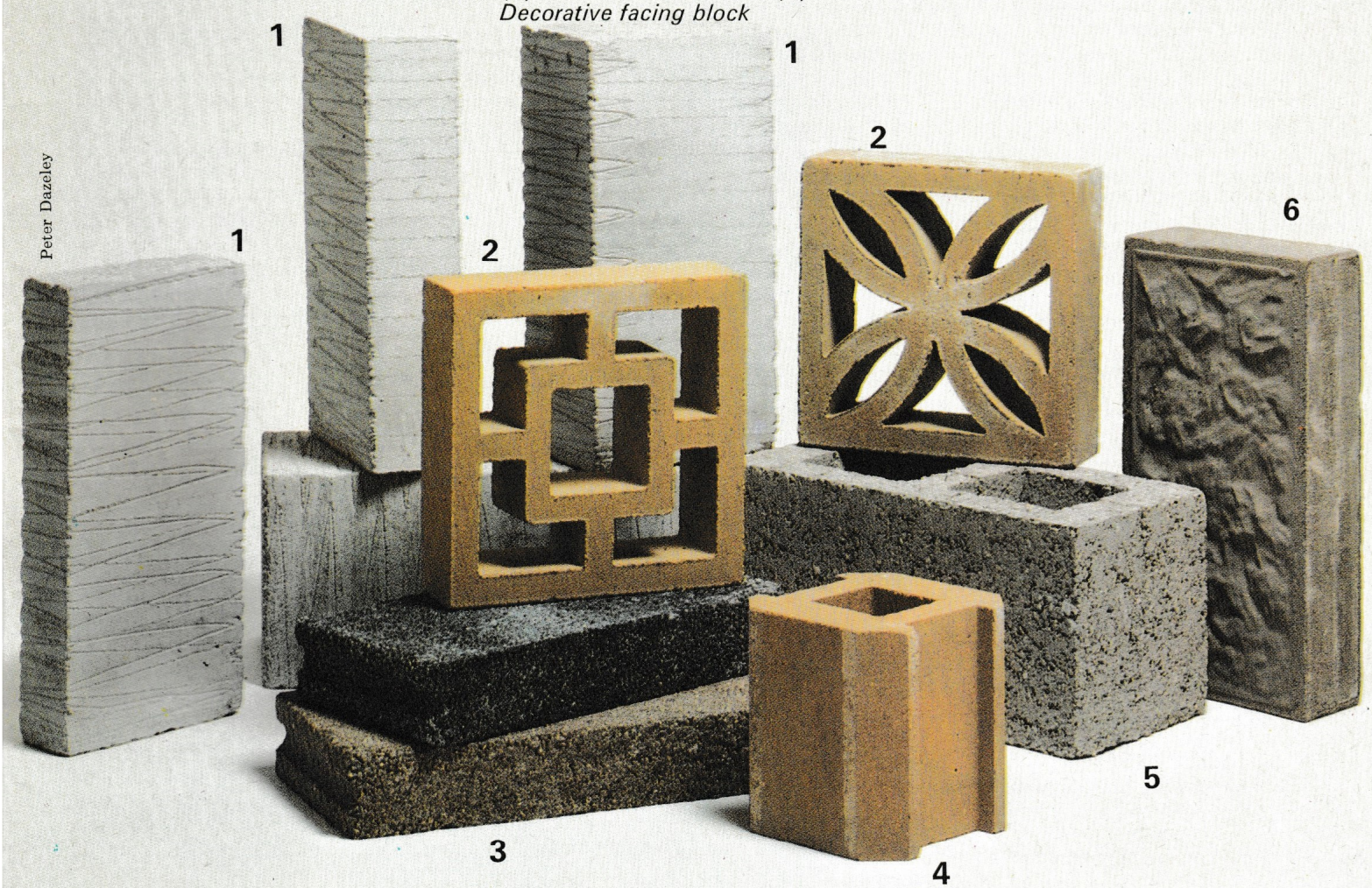
Types of concrete block

Pre-cast concrete blocks come in all shapes and sizes. The term building block properly refers to the rectangular units used for building solid walls. These in turn are classified as either common or facing blocks.

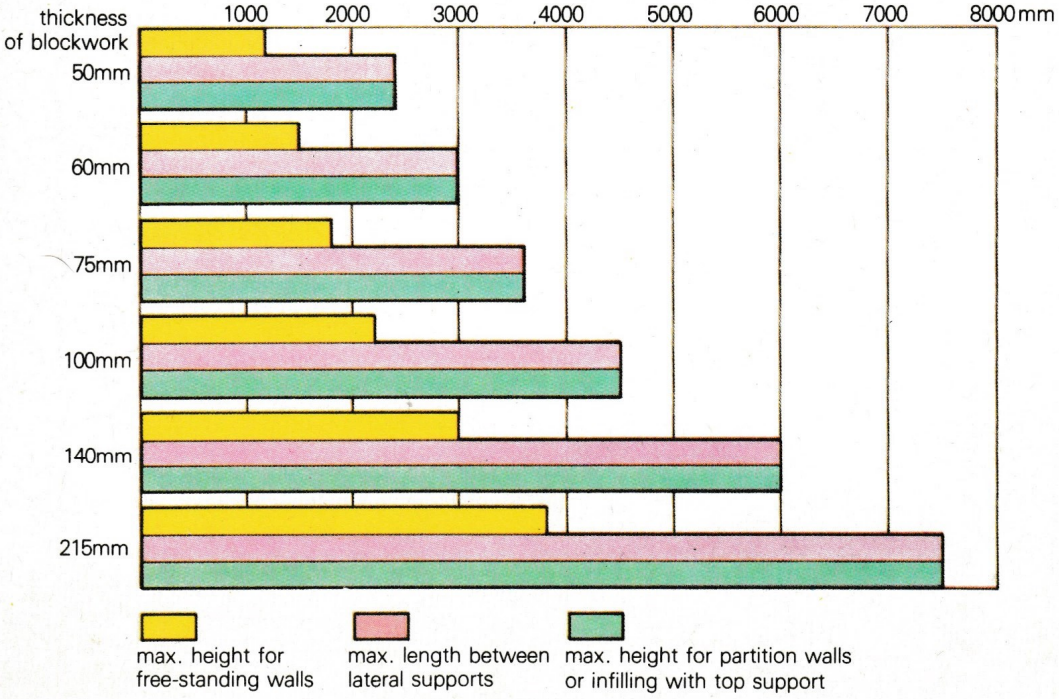
Pierced blocks are the open, decorative kind used for garden screen walls like the project on page 350. As they are non-loadbearing and always laid unbonded (not overlapping), pierced block walls must be supported by piers or pilasters.

Special, hollow blocks are available for building piers, though bricks can be used instead. Thin, dense blocks known as copings or cappings are used to line the top of such walls and help protect the pierced blocks from adverse weather conditions.

A. *Some common types of building block: (1) Solid block ready-scored for plastering (2) Screen wall pattern block (3) Two colours of dense block (4) Pilaster block (5) Hollow cellular block (6) Decorative facing block*



Peter Dazeley



Calculating quantities

Building blocks are always sold in nominal sizes, to take into account the 10mm mortar joint around each block and make calculating quantities easier. Thus, a block of nominal size 450mm × 225mm × 150mm in fact measures 440mm × 215mm × 140 mm—a small, important difference.

The most common sizes of building block are 450mm × 225mm (10 required per $1m^2$ of wall); 400mm × 200mm (12.5 required per $1m^2$ of wall); and 450mm × 150mm (15 required per $1m^2$). Common nominal thicknesses are 60mm, 70mm (non-loadbearing), 85mm, 100mm, 150 mm, 200mm and 225mm.

Pierced screen blocks are normally sold in a nominal size of 300mm × 300mm × 100mm (11 required per $1m^2$).

So, when calculating your requirements for a wall, multiply the length and height in metres then multiply this figure by the requirement per m^2 of your particular block. If piers are included in the wall, work out how many blocks they will take and add or subtract this figure from the total.

The above sizes will vary slightly in Australia.

Building blocks

Common building blocks come in a variety of materials, each of which has specific loadbearing and insulating properties.

Lightweight aggregate blocks: Made from pottery dust, clinker or fuel-ash, these are the most popular types of building block. They are available in both loadbearing and non-loadbearing grades and may be hollowed out to reduce weight. When they are used on external walls, they must be rendered for protection.

Aerated blocks: Constructed of the same materials as aggregate blocks but formed by a different process, these are lighter blocks and have better insulating qualities. They are not, however, as strong or robust and should not be used on external walls.

Heavyweight blocks: These are very heavy, dense blocks of pressure-formed concrete used only where great strength and exceptional water resistance are called for. Their most common application is in a structural wall below damp-proof course level.

Heavyweight blocks are awkward to handle, difficult to cut or chisel and can only be laid two or three courses at a time—the mortar must be left to dry thoroughly at this stage. Hence, their use in DIY work is rare.

Facing blocks are formed with one of the face sides in a dense, compacted material. This makes them suitable—and attractive enough—for external walls. Split facing blocks have faces resembling natural stone. In exposed aggregate facing blocks, the colour and texture of the aggregate used determines the finish. Profiled facing blocks are moulded to give a pattern to the main face.

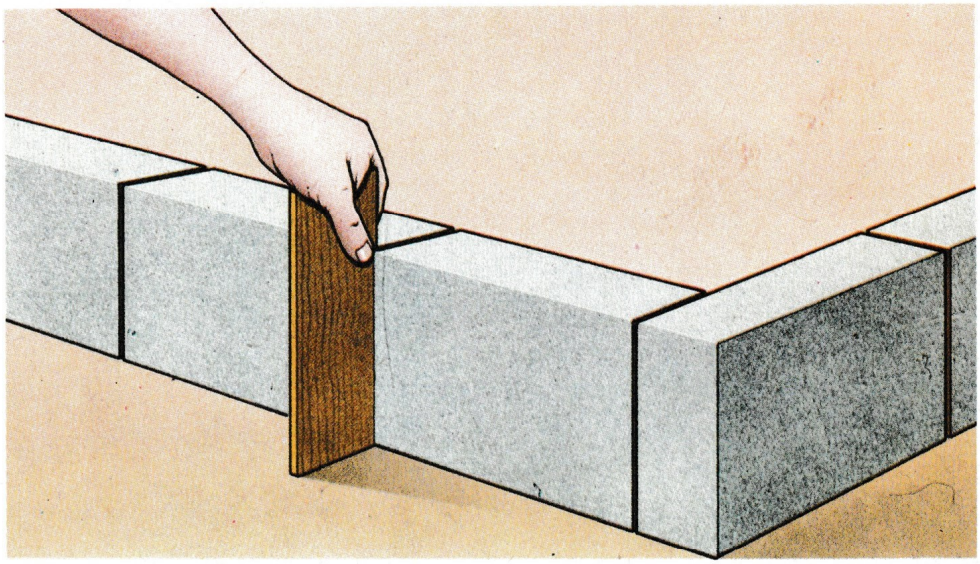
B. *When building with blocks it is important not to exceed the maximum dimensions specified for each size*

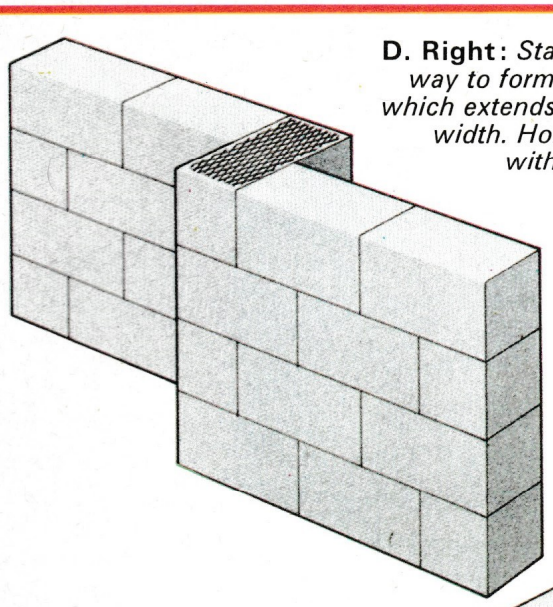
Mortar mixes

As with brickwork, the mortar used to bond blocks should never be stronger than the blocks themselves. Because the strengths of blocks vary so widely, manufacturers normally give very specific instructions on the correct mortar mix to use for any one block.

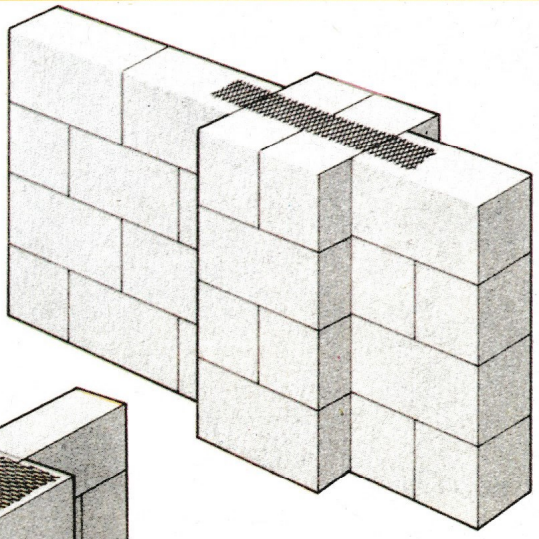
As a rough guide, loadbearing blocks

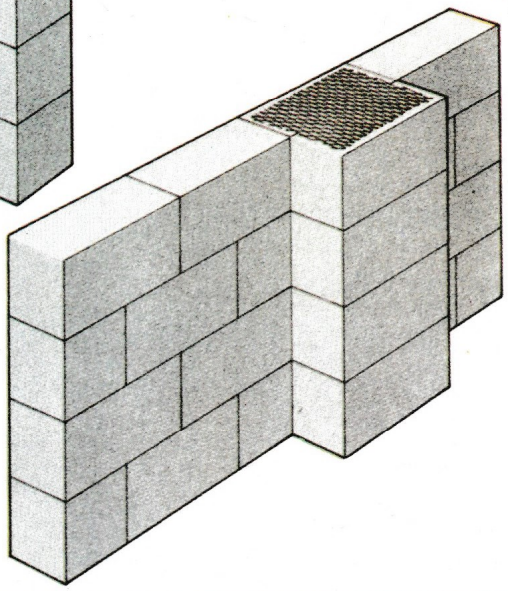
C. *To build a conventional block wall, gauge the width of the mortar joints with a 10mm wide offcut from a scrap of wood*





D. Right: *Stack-bonding is a good way to form a pier in a block wall which extends beyond its maximum width. Hold the blocks together with expandable wall ties*





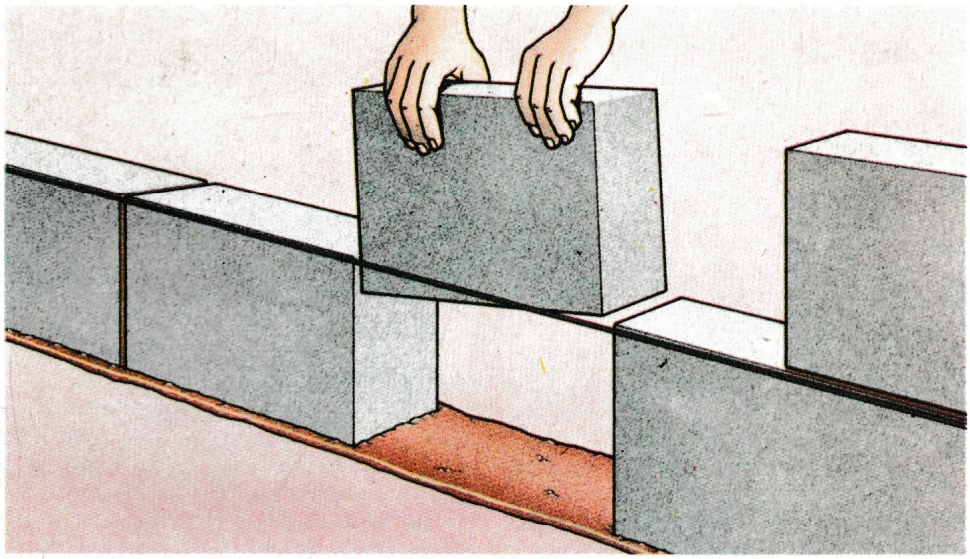
E. Above: *A parallel wall will act as a brace to support a long run of a conventional block wall. Use an expanded metal tie to hold the blocks together*

F. Left: *An alternative method of building a stack-bonded pier is to have one side of it flush with the block wall. Use a wider piece of expanded wall tie to secure the pier*

Bernard Fallon

take a mix of around one part Portland cement to six of sand while the lighter, non-loadbearing type require a one to eight mix.

G. *Having built up four courses to form the quoins, stretch a length of twine between them to act as a guide for the intervening wall*



Foundations

Where the foundations for lightweight, loadbearing and non-loadbearing blocks are concerned, there are no special factors to consider. Simple footings or rafts can be constructed in the same way as for brickwork (see pages 272 and 277). The only constructional difference occurs in the foundation for a screen wall. Here, steel reinforcing bars for the piers must be set in the wet concrete.

The foundations for heavyweight blocks often need reinforcing with steel mesh—your local building inspector can advise you on this point. The building inspector should, in any case, be consulted if you are planning a loadbearing block wall.

Piers

If it is necessary for a block wall to continue beyond the maximum permissible free-standing height and length (fig. B), some form of support must be used. This can either be a parallel wall which forms a lateral bracing (fig. D) or a pier.

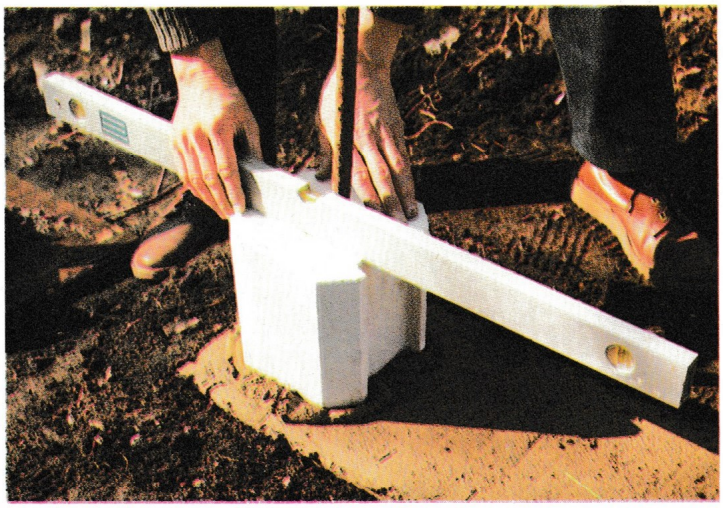
Piers can be made in brick or from more blocks (fig. E) and should be twice the thickness of the wall. In both cases, the pier must be incorporated into the structure of the wall with wall ties.

Use either standard, galvanized wall ties or strips of expandable wall tie, set into the mortar joints on each course (fig. F).

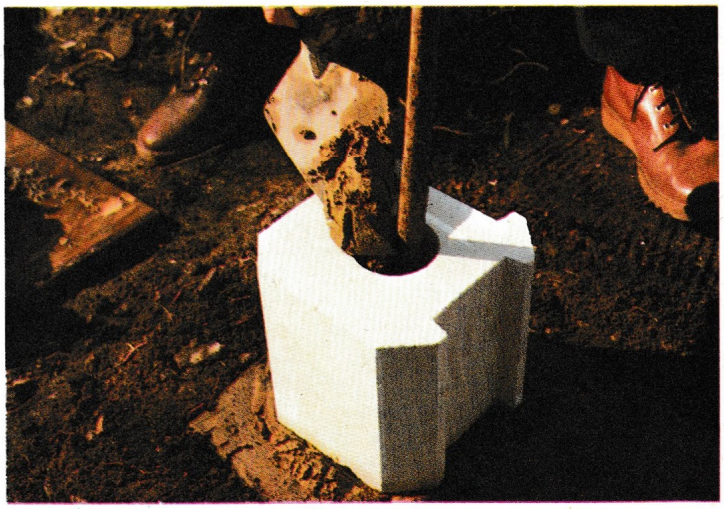
Pilasters made from hollow con-

1 *When you have pressed the reinforcing bars into the wet concrete—making sure that they fall in the middle of the pilaster block—check that the foundations are level before proceeding further*

2 *Once the concrete in the foundations has set, a bed of mortar can be laid down around the base of the reinforcing bar. Lay down enough mortar to form a good base for the first block of the proposed pier*



3 *Slide the first pilaster block over the reinforcing bar, making sure that the slot for the pierced block is facing the right way. When it is in position, tamp it down with a piece of wood and check for level*



4 *When you have established that the pilaster block is level, its hollow can be filled with concrete. Make sure that the concrete is tightly packed in around the bar so that sufficient support is given to it*

crete blocks are a special kind of pier, particularly suited to supporting screen walls. Their sturdy construction also makes them ideal for gate posts.

Constructing a pilaster

The strength of a pilaster is derived from a hook-ended steel reinforcing bar which runs through the hollow blocks into the foundations below.

Having dug your footing and filled it with wet concrete, decide on how many pilasters are needed. Then, mark at the side of the footing exactly where the first block of each pilaster will go—bearing in mind that an exact number of pierced blocks must run between them.

Use the marks as guides to positioning the reinforcing bars—which must fall roughly in the middle of the pilaster blocks—and press the bars into the concrete (fig. 1).

When the concrete in the footing has gone 'off', lay down a bed of mortar around the first reinforcing bar and slide on the first pilaster block (fig. 2). Make sure that the slot for the pierced blocks is facing the right way for the construction.

Next, fill the hollow in the block with concrete, tamp it down with a piece of wood and check the block for line and level (figs 3 to 5).

The pilaster can now be built up to the desired height as follows:

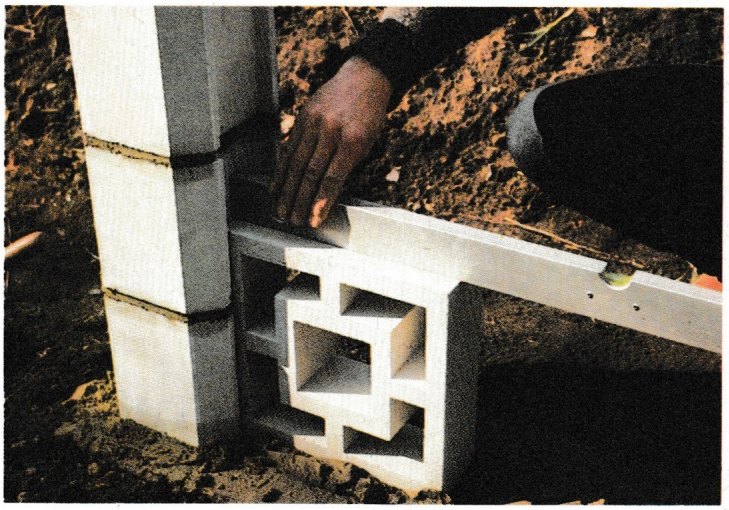
- Lay down a 10mm mortar joint around the block already in position
- Slide a further block on top
- Fill the hollow with concrete and tamp firmly
- Check for line and level
- Repeat for the next block

When you have built up the pilasters to the desired height, leave them to set. When hard, any protruding reinforcement can be sawn off and the pilasters finished with coping blocks for neatness.

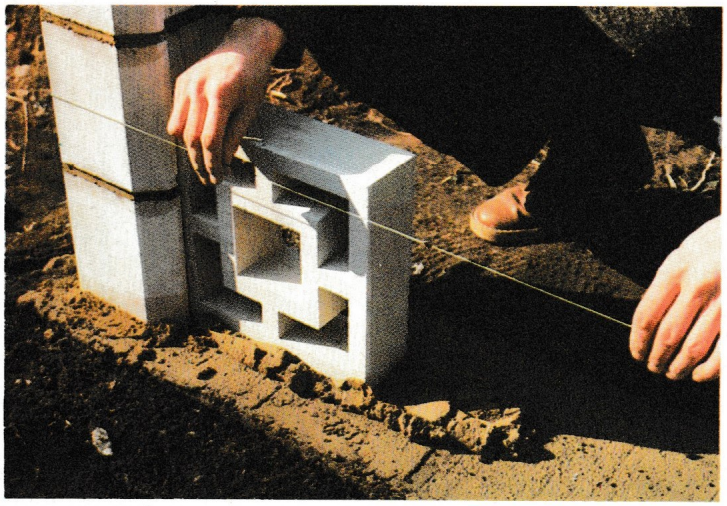
Building screens

Pierced blocks for screen walls are always laid unbonded, to preserve their pattern. The slots in the pilaster blocks are sufficient to bond the screen to the pilasters but intervening vertical joints must be strengthened with

5 *Check that the first block is level and then lay down a 10mm mortar joint around its edge. Slide the second block into position and press it down on to its mortar bed. Check it is level and fill as before*



6 *Having built up the pilasters to the desired height, they should be left to set and the top of the bar cut off as appropriate. Set the first screen block in position on a 10mm mortar bed and check it for level*



7 *When this block is level, stretch a piece of twine between the two ends of the wall and use this as your guideline to position the intervening screen blocks. Check that each block is level as you lay it.*

8 *Always build up at least four courses of a pier before you build the intervening wall. When the wall is completed it can be topped with coping blocks, both as protection from damp and for a neater finish*

strips of expandable metal wall tie. The strips are laid across the vertical joints between blocks on every course and must be well bedded in to the mortar. To make sure of this, lay down a thin bed of mortar, position the tie and then cover it over with more mortar, up to a 10mm thickness.

When filling in a screen of blocks between pilasters, start laying according to the arrangement shown in fig. 6. With a length of twine stretched between ends, you will then have a guide to positioning the intervening blocks. Check each block, as you lay it, for line and level (fig. 7).

Like the pilaster blocks, screen blocks can be topped with coping blocks for a neater finish.

Conventional blockbuilding

Building a wall with blocks calls for much the same techniques as building with bricks (see pages 88-92).

Normally, only the half-lap bond—where one block overlaps those above and below by half its length—is used. This involves some cutting of blocks.

For lightweight aggregate blocks, the cutting technique is to mark off the block then chip around it with a club hammer and bolster until it splits of its own accord. This is much easier on solid—rather than hollow—blocks, though pre-cut half blocks are sometimes available.

Heavyweight blocks can be cut in the same way, though more force is required. Aerated blocks can be sawn, using either a masonry saw or general-purpose saw.

When planning the first course of a blockwork structure, you can keep cutting to a minimum by laying out the blocks in a 'dry run' and then adjusting the width of the vertical joints between them.

Always build up at least four courses of a quoin (see pages 132-137) or pier before you fill in the intervening blocks. Check each block in the quoin or pier individually for level and line then use a length of taut twine to guide you through the rest of the structure (fig. G).

An offcut of 10mm softwood is useful for gauging the width of the mortar joints between blocks.

Build a garden screen wall

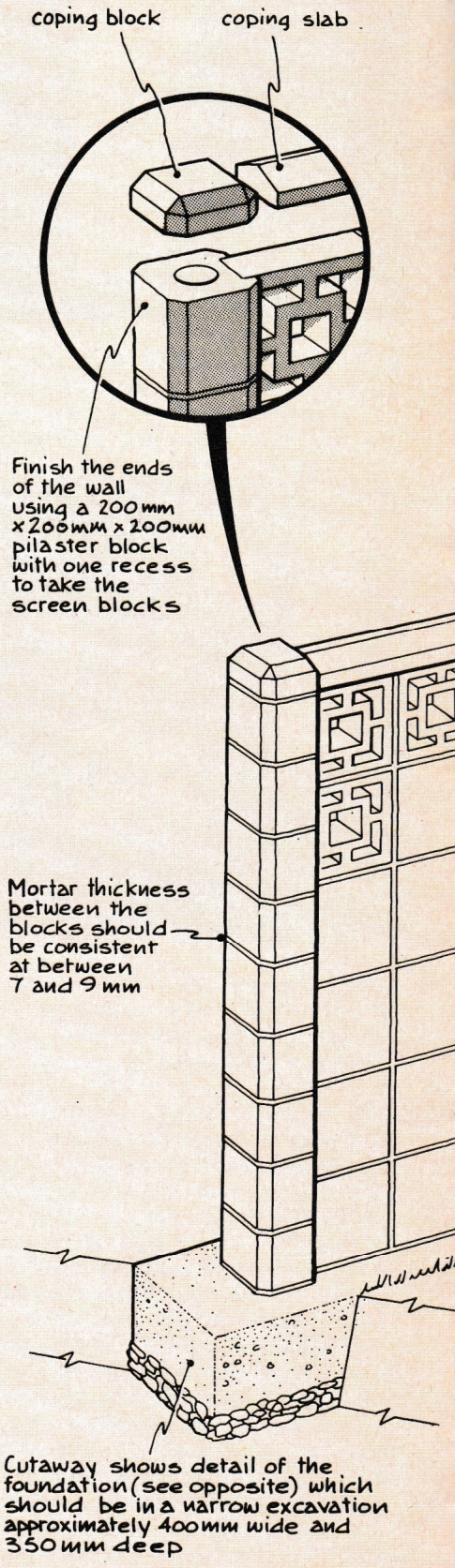
Barnaby's Picture Library

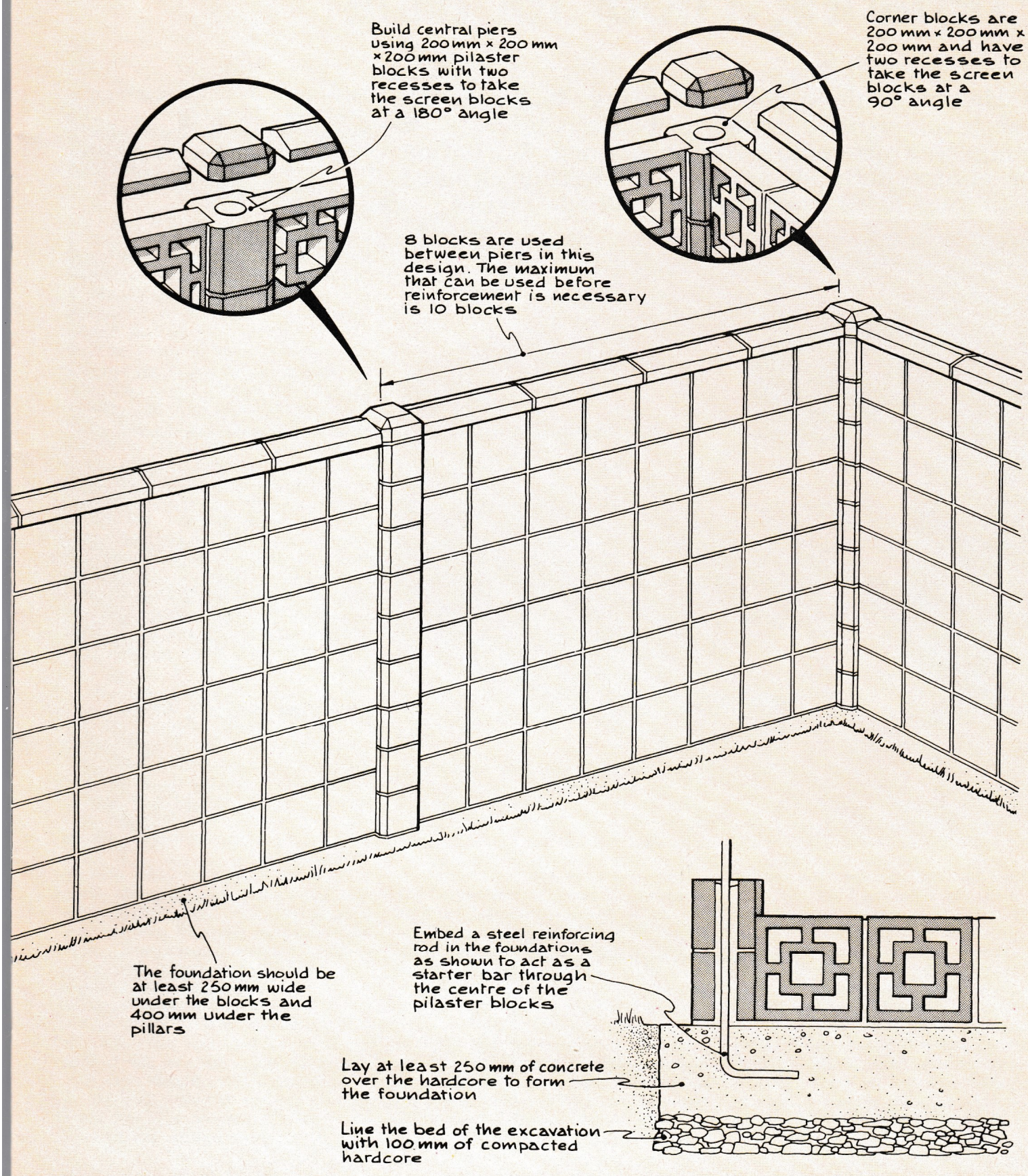
A screen wall constructed in pierced blocks is a useful way to divide up a large garden or to break up an uninteresting view. You can construct quite large walls with no special reinforcement, or you can make them as small or low as you like. The blocks are not intended for load-bearing structures, but you can use them to support a lightweight roof, such as a softwood frame covered in translucent acrylic sheeting, which makes them suitable for covered patios or carports. This project is for a simple free-standing garden divider, but it could easily be adapted to use in this way by adding a simple light roof framework.

The table on page 346 gives the maximum sizes for free-standing walls without special reinforcement, and this wall is constructed to these limits for ease of building. It uses standard pierced screen wall blocks in the commonest size (300mm × 300mm) with matching 200mm × 200mm × 200mm pilaster blocks and coping stones. Exactly 48 blocks are used between the piers, the edges of which are recessed to take the screen blocks. Special blocks are available for corners and ends of the wall to give a neat finish.

The building methods are those shown in the step-by-step instructions on page 348. Start by laying and levelling the foundations. This is most important, as it governs the stability and evenness of the finished wall. Do not omit the steel reinforcing rod which provides a starter for the pilaster blocks.

Lower pilaster blocks on to the rods, bedding them on mortar between 7 and 9mm deep and filling the central hole with liquid mortar. Check alignment as each block is laid until three pilasters are built up in each pier. Lay a bed of mortar on the foundation and in the groove of the pilaster block and position the first screen block, checking it is level. Work from both ends to the centre until the first course is complete. Continue in this way until you reach the finished height, then add the capping. Be careful not to get mortar on the decorative surface of the capping as it stains easily and is difficult to remove.


coping block
coping slab
Finish the ends of the wall using a 200mm x 200mm x 200mm pilaster block with one recess to take the screen blocks
Mortar thickness between the blocks should be consistent at between 7 and 9 mm
Cutaway shows detail of the foundation (see opposite) which should be in a narrow excavation approximately 400mm wide and 350mm deep


Build central piers using 200mm x 200 mm x 200mm pilaster blocks with two recesses to take the screen blocks at a 180° angle
Corner blocks are 200 mm x 200 mm x 200 mm and have two recesses to take the screen blocks at a 90° angle
8 blocks are used between piers in this design. The maximum that can be used before reinforcement is necessary is 10 blocks
The foundation should be at least 250 mm wide under the blocks and 400 mm under the pillars
Embed a steel reinforcing rod in the foundations as shown to act as a starter bar through the centre of the pilaster blocks
Lay at least 250 mm of concrete over the hardcore to form the foundation
Line the bed of the excavation with 100 mm of compacted hardcore

Preparing a floor for tiling

● Making a floor good for tiling ● A smooth and level surface using a board underlay ● Tempering procedure for hardboard ● Finding the centre point of a room ● Making chalked guidelines for pattern design and tile laying

Ray Duns

Below left: *Dry laying of tiles to check the fit. These vinyl-strengthened cork flooring tiles are being laid on floorboarding that has been covered with sheets of suitable hardboard. Chalked lines ensure accurate tiling*

A tiled floor can transform the appearance of any room, and for the most part the job is straightforward and quick. Badly-laid tiled floors can be an eyesore, but you can prevent this by taking a little extra care at the planning and preparation stages.

Vinyl floor coverings are by far the most popular choice, especially for kitchens and bathrooms, and it is not difficult to see why. Vinyl tiling is available in various forms and a seemingly infinite range of colours and designs. And although various types of fixing methods may be used, none present a problem. The techniques of laying vinyl tiles are covered in the next part of this course.

Cork has some splendid characteristics which make it well-suited for use as a flooring material, and is almost as easy to lay and finish. And of course there is nothing to match the quality and durability of quarry or ceramic tiles. Laying these tiles is covered in a later part of the decorating course.

You can tile a floor only if the surface is sound, firm and level. Loose floorboards, damp or uneven concrete, old linoleum and pitted asphalt are typical floor conditions that need to be checked and corrected before laying vinyl or any other form of tiling. Bumps and high points quickly cause wear or cracks in floor coverings.

Preparing wood floors

Nail or screw down any loose boards and drive in or remove insecure nails and screws. Wood floors should be covered with plywood or hardboard.

Vinyl flooring may be laid directly on chipboard used in place of floorboarding provided the chipboard is of flooring grade and has a minimum thickness of 18mm. Be sure to remove any existing floor covering first.

Suspended wooden floors at ground level must always remain well-ventilated if damp and rot are to be avoided. A vinyl or tile floor covering will not allow timbers beneath to 'breathe' and this can only aggravate any borderline condition that may be present. Check that air bricks in the outside walls are not blocked and take the additional precaution with old, damp properties of raising a floorboard here and there to check for both dry and wet rot.

Preparing concrete floors

Provided concrete floors are dry, clean, level and free from anything which could conceivably react with the overlay (particularly grease and solvents which can have a marked affect on vinyl), they form an ideal base for flooring whether in tile or sheet form.

The most common problem is dampness, particularly on concrete floors laid directly on top of earth that have not been provided with a permanent damp-proof membrane. Even if a concrete floor looks dry, try a simple test to check whether or not it is so. Place a rubber mat, piece of cooking foil or plastic sheet on the concrete and tape the edges down as best as possible. Turn on the heating at a setting a little higher than normal, then, after 24 hours, peel off the test sheet. The presence of any moisture on the underside indicates a damp floor.

If the floor is damp, it must be treated with waterproofer before being

overlaid with flooring of timber, cork or any other material that could be affected by moisture. A wet floor may have to have its surface relaid and a waterproof membrane inserted (regardless of the floor covering used).

A damp floor can be treated with waterproofing compound—usually an epoxy coating or rubberized bitumen. Pitting and general unevenness can be rectified using what is known as a self-levelling compound. Pour this over the floor area to a minimum depth of about 4mm, following the maker's instructions closely as these may vary.

To fill larger holes, make up a mortar mix of three parts soft sand to one of Portland cement. Add just enough water to make the mix maleable and a little plasticizer to minimize shrinkage during drying.

Damp the holes with water and apply the mortar with a bricklayer's trowel. Tamp it down with the end of a piece of timber and slice off any surplus with a timber straightedge.

Floors with a surface which is powdery but otherwise sound can be coated with a latex-based sealer before being overlaid by tiling.

Other floors

It is possible to lay vinyl and cork flooring over existing quarry or ceramic tiling provided that the gaps between the original tiles are filled with self-levelling compound. This is to prevent the old tile pattern from working through—a particular problem near doorways and other areas subject to continuous wear.

Also, take particular care to remove grease, dirt and grit: perhaps harmless to the original tiling but often damaging to vinyl and cork. A good wash with household detergent and hot water is normally sufficient.

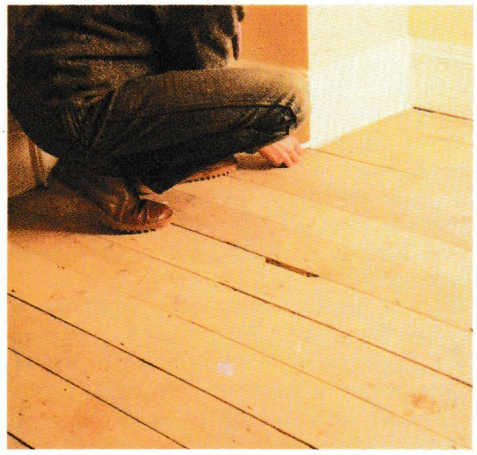
You can also lay some types of vinyl and cork tile over existing linoleum and vinyl flooring where removal poses problems. Again, make sure the surface is clean and that all edges on the old tiling are stuck down properly. Where possible, do remove all old tiling as this helps avoid problems both in laying the new tiling and later. Old tiling must be removed if quarry or ceramic tiles are being used.

Laying hardboard

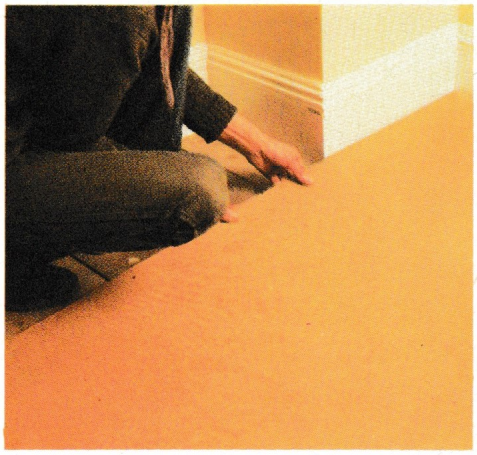
On an old, rough wooden floor, laying hardboard or plywood over the entire surface is often the only way of easily achieving a smooth surface on which to lay tiles. Concrete floors sometimes require the same treatment but usually this is not essential, although you may prefer the additional insulation this underlay provides. You cannot, however, lay sheet material over some damp-proofing compounds—so check this point with your floor covering dealer.

Standard-sized hardboard comes in sheets 2440mm × 1220mm, and for this job select the 6.4mm thickness.

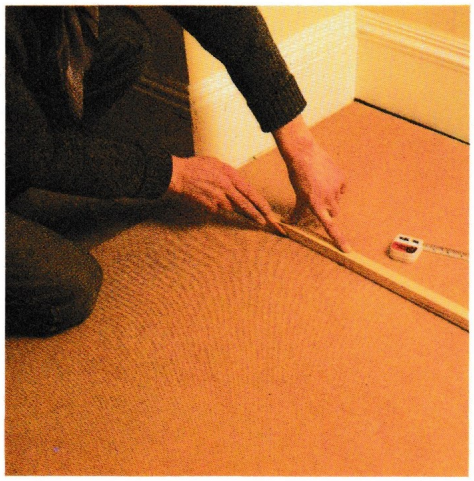
Hardboard sheets have to be conditioned prior to use otherwise buckling may occur through localized shrinkage or expansion after they have been laid. Temper the boards by brushing the rough side with water and lay the sheets flat, smooth sides together, overnight or longer so the moisture is fully absorbed. The idea is that the sheets will dry out after being laid, in the process shrinking slightly to form a very tight, level surface.



1 Measure up the room and decide how best to use standard hardboard sheet sizes. Allow for cuts around obstacles



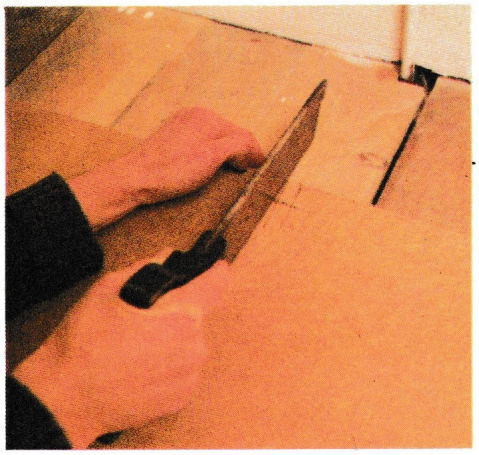
2 When cutting hardboard to fit a corner, pull the sheet as close as possible to this so that direct measurements can be made



3 Measure back the corner depth and use a straightedge to mark the cutting line, allowing a slanted cut if this is necessary

4 You will find it easier to cut the hardboard at floor level, propping up the edges as best as possible to enable sawing

5 When the board has been cut to shape, push it home and then use hardboard pins or screw-thread nails for permanent fixing



6 *Individual obstructions can be dealt with as they are encountered but remove only as much of the board as necessary for a tight fit*

The hardboard is laid rough side upwards as this gives a better key for any tile adhesive used. Stagger the joints to reduce the likelihood of strain at any particular point—which could lead to cracks or wear in flooring placed above—and avoid coinciding the hardboard joins with those of floorboarding below for the same reasons.

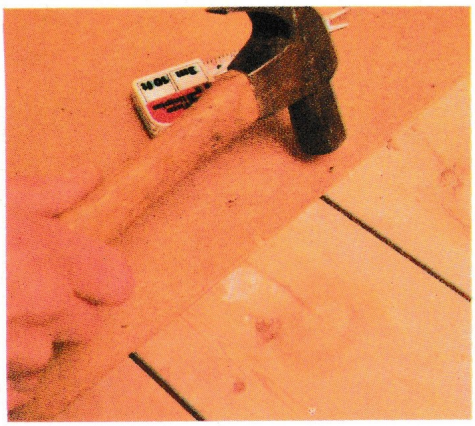
On a wooden floor, use 25mm hardboard pins to nail the board at 150mm spacings over the entire surface and at 100mm spacings along the edges. On a concrete or cement floor you have to glue the board in place using a suitable adhesive such as neoprene thixotropic. When sticking anything to concrete, check whether or not an initial coat of primer is required as concrete can very easily absorb some other types of adhesive.

Few rooms are truly square and you will need to use wedges and strips to fill the small gaps left after trimming the boards as they are laid. If these gaps are very small, it is worth using filler paste instead.

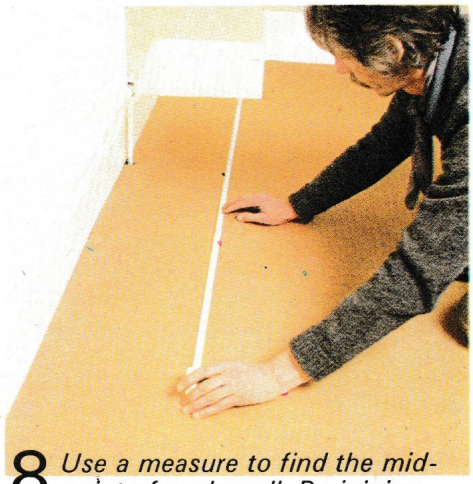
When you have laid the boards, allow them to dry out before overlaying vinyl tiles or sheet—a day or so is normally long enough. Spend the time correcting any tight-fitting doors which open into the room. Normally the gap between the base of the door and the floor is sufficiently large enough to accommodate a layer of thick floor covering or, in this instance, a layer of plywood or hardboard—but only rarely both together. So check the gap beneath the door both before and after laying covering boards.

If necessary, lift the door off its hinges and trim (by planing or sawing) 6mm or so from the base. You may find it easier to replace the existing hinges with rising hinges.

Where board laying continues through a doorway into an accompanying room, ensure that draughtproofing aids such as a threshold bar are removed. Sheet edges should be tightly butted here—and then covered with the threshold bar again if further draughtproofing measures are necessary, which seems likely.



7 *Nail boards at 100mm spacings at the board edges, and at 150mm centres over the whole surface area of the sheet*



8 *Use a measure to find the mid-point of each wall. By joining the opposing mid-points you can find the centre of the room*

Laying plan

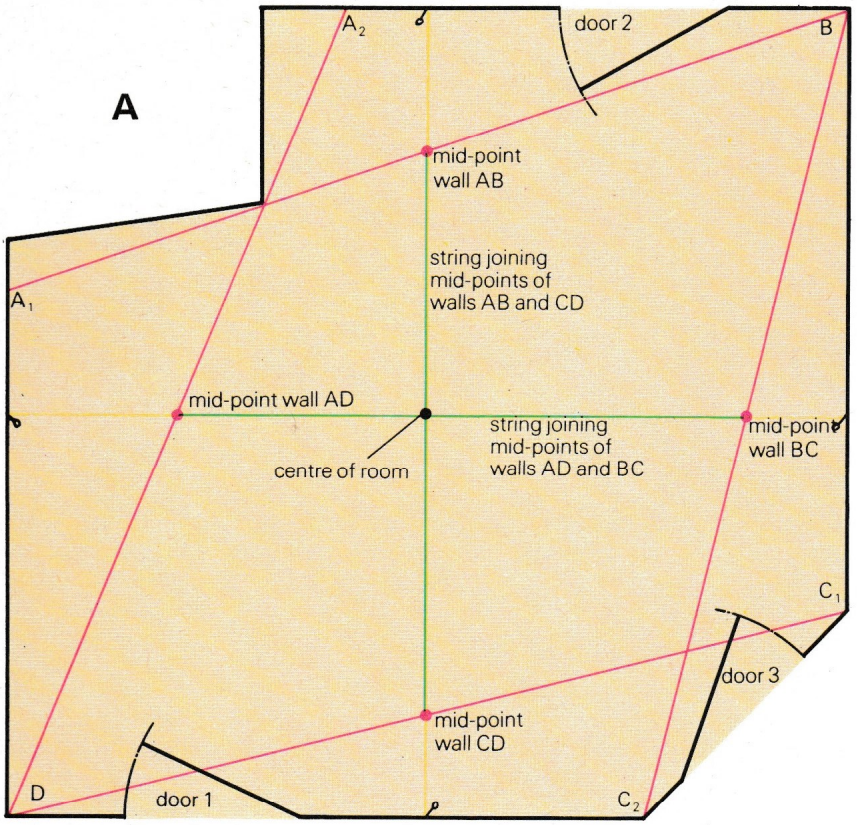
Once the floor preparations have been completed, some idea of the lie of room is necessary for planning a design and for choosing tiles or tile sheeting.

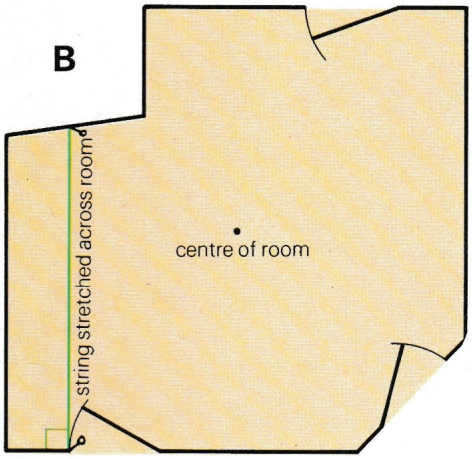
In theory, all designs should radiate or progress from the centre of the room. Find this by measuring off the centre line of two opposing walls. Stretch a chalked string between the two and snap this against the boards on the floor. Repeat this for the two remaining walls so that another chalk mark is made: where they cross is the centre point of the room. This is a simple enough job for a normally-shaped room. Figure A shows the procedure for awkward rooms and you can adapt the method to suit your needs. Where possible these should, of course, be moved to make board and tile installation easier.

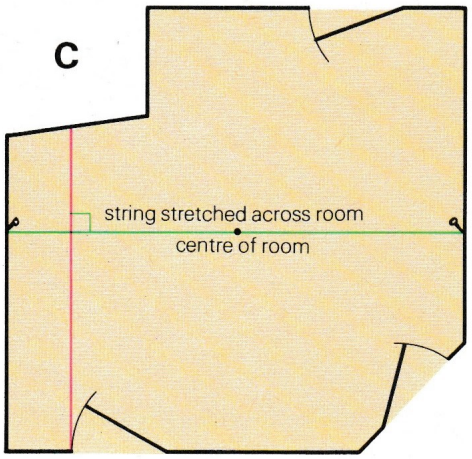
Although any design is based on the centre of the room, border walls must be considered if an even pattern is to be achieved. Also, the tile direction should be square, or perfectly symmetrical, to the main doorway of the room. So in figure A you would base

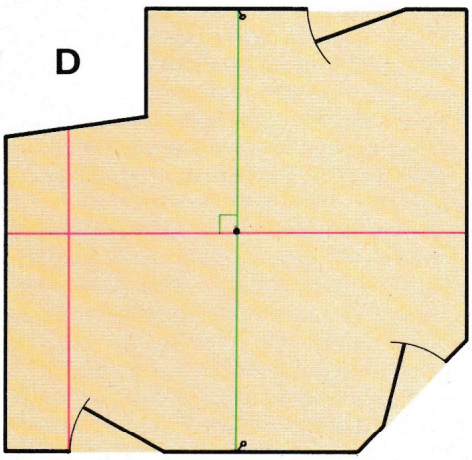
9 *To produce a chalked mark for accurate tiling, stretch a chalked string between opposing walls and snap this against the floor*

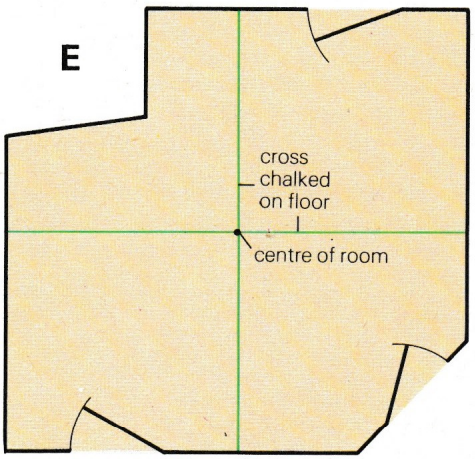
10 *The crossed chalk lines at the centre of the room are used as the starting point for a trial, 'dry run' and later permanent fixing*











the tile pattern on either door 1 or door 2 in preference to door 3 even though the tile pattern falls at 45° to this, which is visually acceptable.

To mark out guide lines for laying, produce a chalked mark at right angles to the doorway (fig. B), far enough for another chalked mark to be made across the room and coinciding with the centre point (fig. C).

Make another chalked line at right angles to the second line, again passing through the centre point (fig. D). This line is of course parallel with the first. The resulting cross you have chalked on the floor is now used for the exact planning of a pattern, and also provides a guide for the tile-laying sequence which follows.

When, later, you have chosen your tiles and have designed a pattern for these, follow the cross-lines in a 'dry laying' sequence to check how the tiles finish off at the edges. Ideally the border round the room should be even and although this is not always possible as far as the pattern is concerned, it is certainly possible to re-arrange the position of the chalked cross so that tile widths are even on each pair of opposing walls.

Left: *To find the centre point of a perfectly square or rectangular room presents no problems, but awkwardly shaped floors need a different approach (A). Instead of totting up individual parts of each wall, measure across the room to take in the obstruction (shown by red line A_1B) and find the mid-point of this. Repeat the procedure for each of the three remaining sides of the room (red lines A_2D, DC_1, C_2B) and find the mid-point of each.*

Mark the floor at these points. Now stretch strings across the room in such a way as to join up each pair of opposing mid-points (green lines). Where the two strings cross is the mid-point of your room.

Your laying plan must be based both on the centre point and on the main doorway (taken here to be door 1) if the tile pattern is to look regular and symmetrical. To do this, first stretch a string at right-angles to the doorway to a point on the facing wall (B). Follow this with another string, at right-angles to the first and coinciding with the room centre point (C). A third string line, fixed parallel to the first, completes the cross (D). By rubbing the strings with chalk, a chalked cross can be snapped on the floor to act as your final tiling guide (E)

Advertising Arts

A tiled step feature

Jon Bouchier

All staging is constructed from 38mm x 38mm sawn softwood, using half housing joints as shown. Cut the housing 38mm wide and 19 mm deep. Glue and screw using 50mm No. 8 (4·2 mm) countersunk woodscrews, or glue and nail. Vertical supports are to the height of front panel less 38mm For 300 mm tiles, this is 250mm to leave the staging at 288 mm

Screw chipboard to staging using 30mm No. 8 (4·2 mm) countersunk woodscrews at 300 mm centres

300

Top board is 1 tile wide

Vertical supports are at 600 mm centres

When rostrum is complete, lay tiles in the normal way, matching the joins to those on the floor

When fitted top board overlaps facing board

Panels from 12mm flooring grade chipboard

Screw to staging using 30mm No. 8 (4·2mm) woodscrews at 300mm centres

Skew nail frame to floorboards

Height of tile less 12mm. For 300mm tile, this is 288 mm to allow top board to overlap bottom

Back batten from 38mm x 38mm sawn softwood. Screw to a masonry wall using plastic wallplugs and 60mm No. 10 (4·9 mm) countersunk woodscrews. On stud partition walls either locate the studs and screw to them, or build second staging against the wall

You can add interest to the edge of a tiled floor by constructing a dummy step like the one shown. In a bathroom or kitchen, this can be a useful way to conceal unsightly pipework, and will also provide a low storage shelf.

The basis for the step is a simple but strong staging frame covered with chipboard as a basis for tiling. Note that this type of construction is designed for a suspended wood floor, and is unsuitable for solid flooring.

Use the tiles themselves as a guide to the size. The dimensions given are suitable for standard 300mm square tiles but you can easily adapt the design for other sizes. Note, however, that you should not exceed 600mm wide with the materials used.

Advertising Arts

Halls, stairs and landings

Though halls, stairs and landings are often put last in the decoration stakes, they are usually the first places visitors see. Just a little imagination ensures that they reflect the character of the house at its best

Below: *A perfectly ordinary landing and staircase is brought to life by interesting use of colour. A border for door panels to match the walls adds a touch of class while simple accessories like flowers and prints complete the effect*

Clive Helm

As halls and landings connect all the rooms in a house and doors are often left open, a number of rooms may be visible from them at any one time. So, if colour schemes are chosen without considering the overall design scheme of the house, unsightly clashes may easily occur.

This makes it important to choose colours for the hall and landing which are harmonious with those in other rooms. And in small homes, linking colour schemes have the added advantage of an illusion of increased space and gives a feeling of continuity.

Pattern and plain

The colours you choose should relate to the shape of the hall and landing—remembering that strong, bright colours advance while light, neutral tones recede. With a large hall you can choose from among the strong tones, but if your hall is small and narrow you may prefer to use lighter tones to give an impression of space.

However, home design rules are made to be broken and because a relatively small amount of time is spent in these areas, the hall, stairs and landing can often be decorated daringly with bright, cheerful colours or strong patterns.

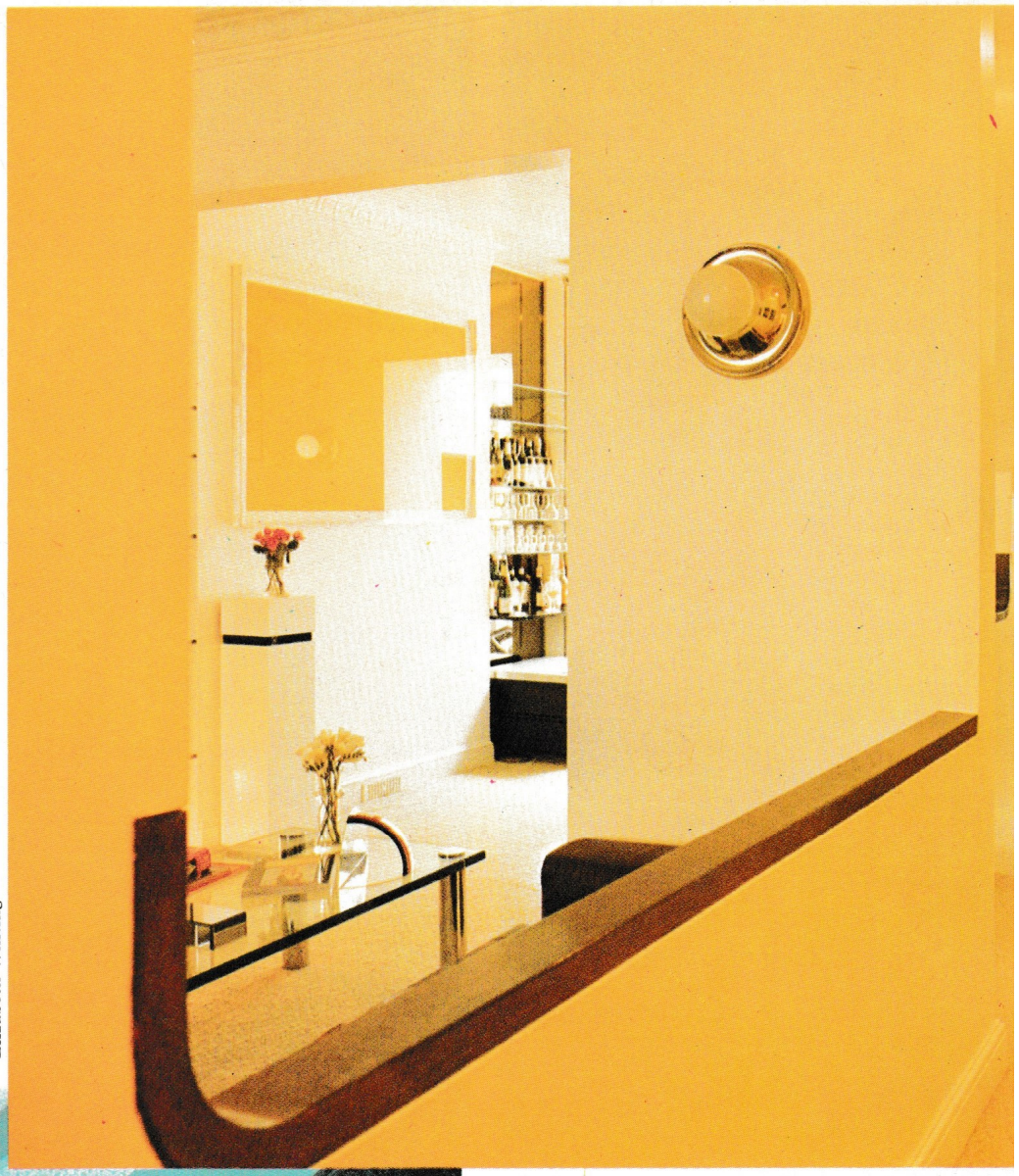
For instance you could paint zig-zag stripes in a variety of colours all over the walls and ceiling of the hall and stairway for a really exciting effect or maybe use one vibrant colour on walls and ceiling with a darker tone picking out banisters and any other details. Bold patterns or vibrant colours in a living room or bedroom may quickly become overpowering.

The usually angular shape of halls and landings makes them especially suited to linear or geometric patterns. Geometrics, in particular, are useful for imposing a symmetry on ugly or irregular shapes. An alternative is to choose a design which blends well with the patterns in adjoining rooms. You could even use the same pattern but in a different colour.

Creating atmosphere

Patterns can also be used to create a variety of atmospheres. For example, a pretty, flowery pattern in muted tones would give a Victorian influence if teamed with Victorian-style furniture such as a chair or hatstand. A small circular table can be covered with material which matches the wallpaper and then topped with a jug of dried flowers. Install gaslight-style brass wall lamps and rummage in the loft or junk shop for old, sepia-tinted photographs suitably framed to add a touch of authenticity.

A dramatic, contemporary look can be achieved by choosing a strongly coloured, geometric patterned wallpaper and contrasting it with another strong colour for the paintwork. A plain carpet in one of the wallpaper colours can be run across the hall, stairs and landing. White plastic or melamine furniture, chrome spotlights and a selection of modern prints and posters on the wall complete the effect.



Elizabeth Whiting

Right: *Make a narrow hallway part of an open-plan scheme by creating a hatchway into the adjoining room. But check building regulations before you knock through any walls*

Below: *Co-ordinating colours and pattern works wonders for halls and stairs. You can also put the hall to practical use by installing a desk and chair below stairs to make a writing or reading area*

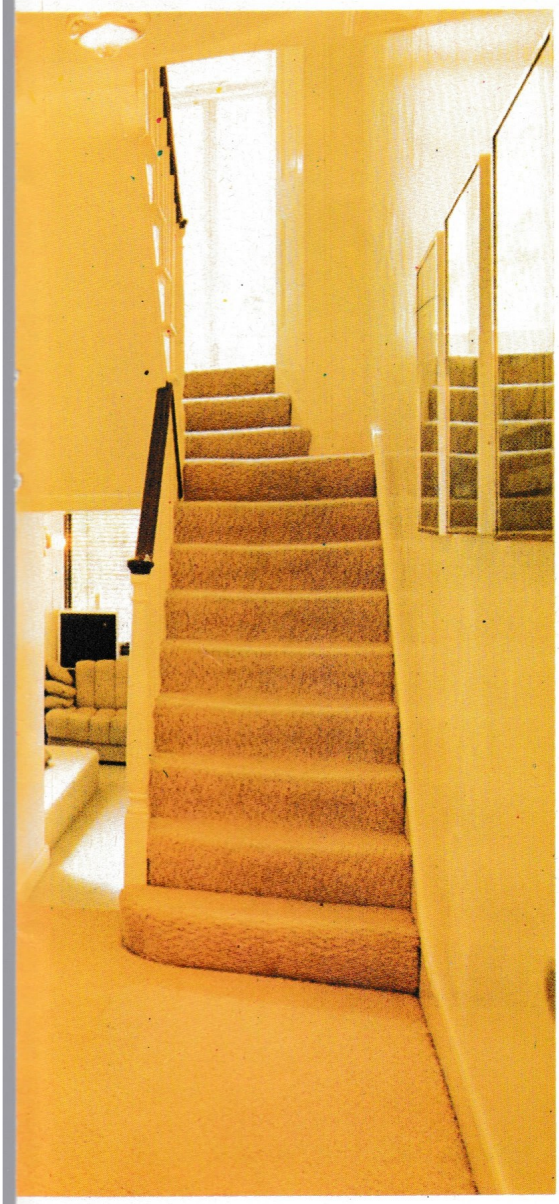
Berger Paints

Some common problems

It is not always possible to start from scratch when decorating rooms—and halls, staircases and landings are no exception. Often there is a strongly patterned carpet or other type of floor covering already installed, which you cannot afford to replace.

But this does not mean that you have to paint the woodwork, walls and ceiling in a neutral colour and then forget about it. Even if you do not like the pattern of the floor covering you can still make an interesting scheme by picking out one of the colours and using it in small amounts for the paintwork—for example on the banister rail or door frame. And by painting the walls and ceilings in a pale colour, an attractive, dramatic look can be achieved at little cost.

Narrow halls are probably the most difficult to decorate successfully, but they can often be visually widened by



Transworld

Elizabeth Whiting

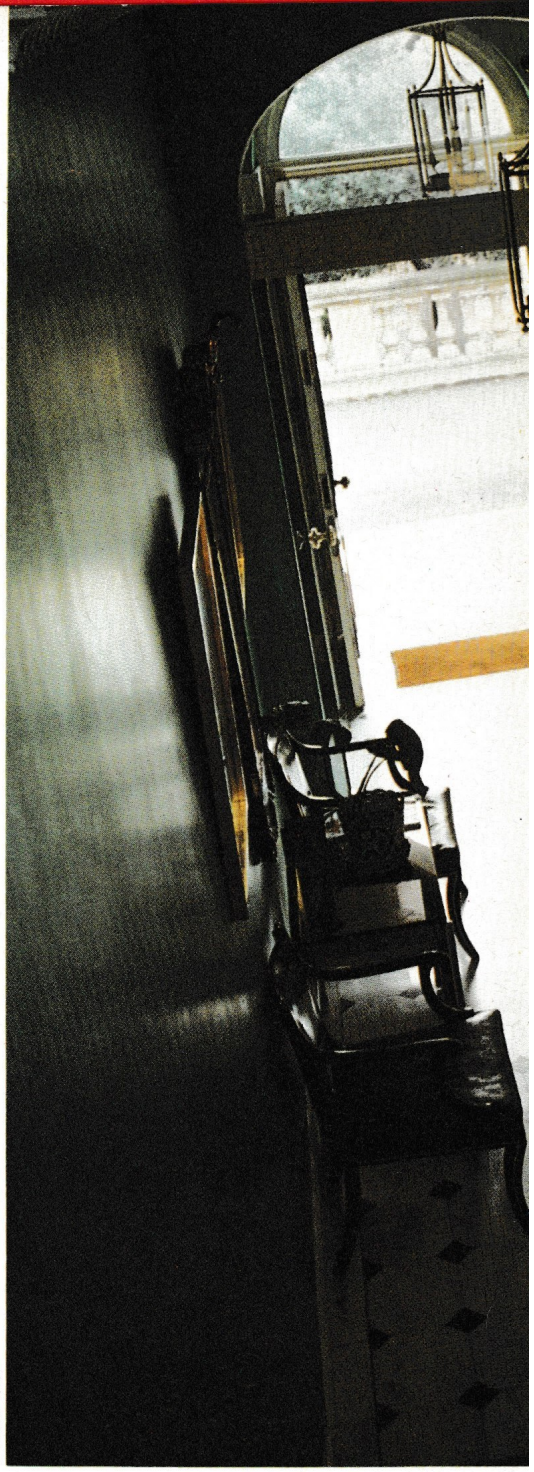
Above right: *Using natural colours and texture will help to make the most of existing daylight*
Right: *Doors at the end of a long narrow hallway can become a focal point by using coloured glass panels*

painting the wall a pale colour or by using a wallpaper which has a large expanse of white or pattern on a pale-coloured background.

Alternatively, a mirror fitted along one wall will make the area seem much wider and will have the added advantage of reflecting light. Large mirrors are expensive, but cheaper plastic mirrors or mirror tiles create a similar effect.

A very high ceiling in the hall or landing can be reduced by installing a false ceiling—tongued-and-grooved boarding is attractive and simple to fix. The height can be optically reduced by painting the ceiling a dark colour

National Magazine Co.



Pictor Ltd

Left: *Even the smallest passage can accommodate shelves to give it added attraction. A motif border adds interest to a high ceiling.* **Above:** *Mirrors create an illusion of space in a narrow hall and stairway*

or by hanging striped wallpaper horizontally in bands around the hall.

Natural light is often poor in halls and on staircases, and colours can look dull unless artificial lighting is used during the day as well as at night. White or pastel colours are often applied in an attempt to cheer up dark hallways, but unless the lighting is good they end up looking grey. It is better to choose bold, warm colours such as yellow or orange.

A dark staircase is potentially dangerous. If there is a dark area, for example at a turn in the stairway, it is worthwhile installing a wall-mounted light. This can be particularly effective if used to illuminate a bookcase, poster or other wall-hung ornaments. Use a textured paper or fabric such as hessian on the wall, combined with extra side-lighting to make a feature of it. Landings can be brightened up by glazing or half glazing a bedroom door (using a patterned glass for privacy).

Original touches

An inexpensive way to give a co-ordinated look to a landing or hall is to paper the walls with wallpaper and glue a matching fabric to the inside panels of the doors. A flush door treated in this way will almost 'disappear' into the wall and also make the hall look larger. A similar effect is achieved with matching paints.

Where there are young children in the home you can personalize each bedroom door by stencilling or painting it with large initials or names.

If you have some artistic talent, you can create an intriguing effect by painting scenic views on doors or even on a hall or landing window which overlooks a poor view. You can buy translucent paints for glass, though the effect may shut out some light.

On the other hand, if your artistic talents are limited, a simple design can be just as effective. Where a window overlooks a boring view you could paint a simple flower design or a blue sky with large, fluffy white clouds. If the view is a pleasant one, make a feature of it by outlining the window frame with a strong colour.

Types of wall and floor covering

Choosing the right materials to decorate halls, stairs and landings is particularly important, as this part of the home is subject to a lot of wear.

If you use a paint, choose one which can be washed or wiped clean of grubby finger marks, particularly if there are children in the home—vinyl silk is probably the most durable choice. Beware of using gloss, as it tends to show up any irregularities in the surface of the wall.

If you decide to use wallpaper, choose a spongeable type, or a heavy-duty vinyl wall covering. You can waterproof an ordinary wallpaper by coating the vulnerable areas with matt polyurethane varnish for protection—this will be invisible on any coloured paper but will show up on white as a slight yellow tinge.

Hessian is particularly suitable for use in this part of the house as it is tough, hard-wearing, comes in a wide range of colours and is useful for covering up minor cracks in plasterwork. If it gets very dirty or you get tired of it, it can be painted over and will still retain its attractive texture.

If the overall area is small, floor coverings for hall, stairs and landing should be of the same material to create an illusion of increased space. Dense patterns and darker colours are less likely to show dirty marks such as muddy footprints. If you decide on patterned carpet for the stairs, choose a small-scale design as large patterns tend to get lost between the steps.

As they receive heavy wear, carpets for these areas should be of heavy-duty quality. This is easy to check on with carpets in the UK as they are graded according to the amount of wear they will withstand. Otherwise you will need to buy from a reputable carpet shop or department store where they will be able to advise you.

If you decide to sand and seal the floorboards instead of buying floor covering, it will still be necessary to carpet the stair treads otherwise they will look bleak and be noisy.

Sisal is an inexpensive material for covering a large hall; it is very tough and its tweedy, flecked appearance helps to conceal the dirt. It is, however, unsuitable for stairs as it does tend to be a bit slippery.

Other inexpensive floor coverings for the hall and landing are linoleum and vinyl, either in sheet or tile form. Lots of attractive and colourful patterns are available and some have patterns embossed on them, making them slip-resistant. If you decide to use tiles you can either lay them conventionally or mix two colours—or more—to create an original design. Remember to lay a patterned flooring of any type so that the pattern leads your eye in a definite direction; for example to the stairs or the sitting-room door.

If there is no doormat outside the front door, you will need one inside. Have it inset into a well to prevent it catching on the door and detracting too much from the overall decoration.

Hall furniture

The hall is often the place where the telephone is housed. A shelf or table will be needed to stand it on, with space for directories and a telephone message pad. If space is really limited, you can use a wall-mounted telephone and message pad.

An umbrella stand and a rack for wet or muddy shoes are invaluable just inside the front door. If space is available, install a small cupboard for overcoats—these look messy hung on pegs and can be knocked off by people brushing past them.

Any space under the stairs can be used to put items such as pushchairs, prams or even bicycles, which might otherwise be difficult to store.

Decorative effects

You can brighten up halls and landings with potted plants, and use hanging plants on the staircase—well above head height—to break up awkward angles or expanses of wall.

Even very small or narrow halls have enough wall space to display a collection of pictures, family photographs, unusual posters, patterned rugs or suitably encased collections of small items such as coins.

The wall space above a bend in the staircase is ideal for a display of pictures or wall-hung ornaments. This gives the staircase a focal point and is preferable to hanging pictures or ornaments at intervals on the wall of the stairway where they might very easily get knocked down.

A good idea for a family of avid readers is to turn the hall or landing into a library. Choose one of the inexpensive shelving systems now available and add a few ornaments to the shelves to make them decorative as well as functional.

Below: *A selection of pictures hung flush to the wall add interest to an otherwise plain staircase*

Elizabeth Whiting

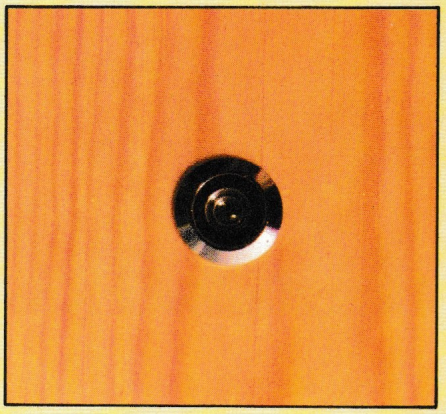
A front door peep-hole

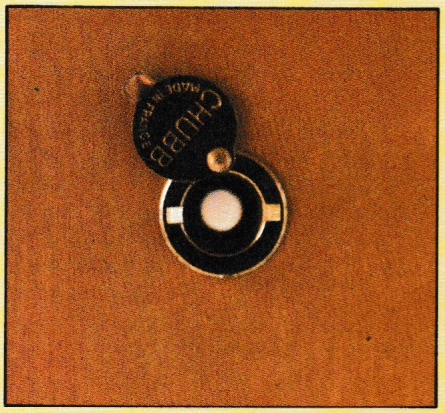
One inexpensive and easy-to-fit home security device is a door viewer or peephole. It will give you the added security of being able to see who your caller is without having to open the door.

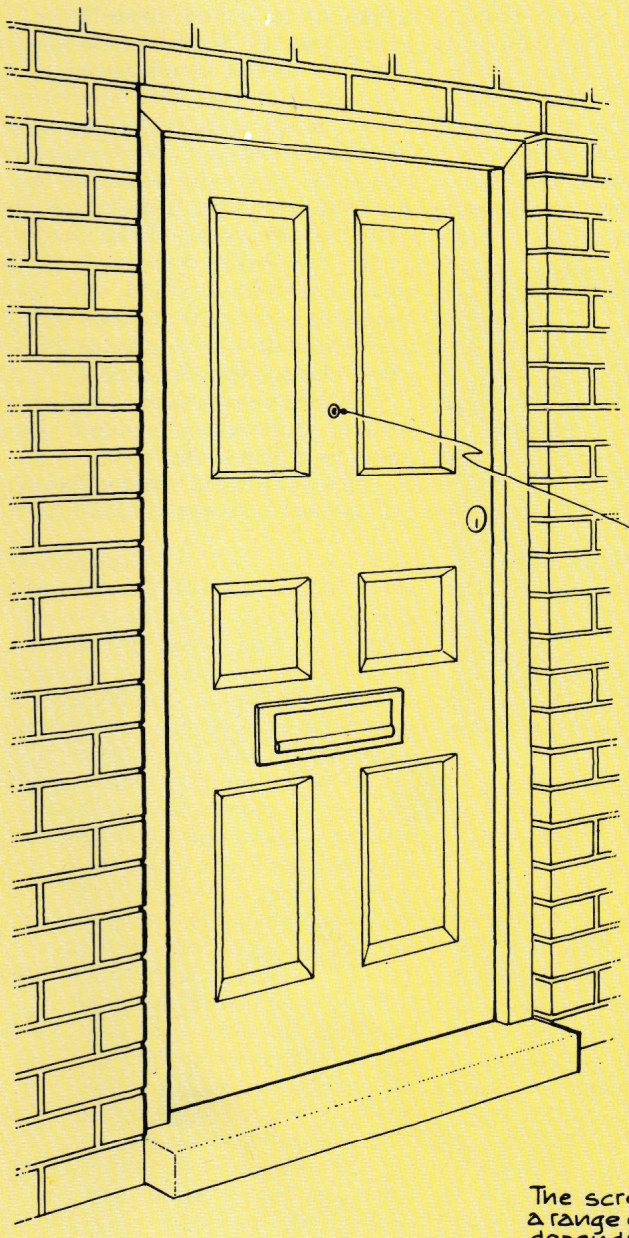
The basis of the viewer is a very small wide-angle lens which lets you see almost the whole area outside the door although the unit itself is very small in diameter.

Fitting is extremely simple. All you need is a hole through the door frame to the right diameter (13mm for the viewer shown) into which you can screw the two halves. The long screw thread between the two halves gives you a range of fitting from 38mm to 52mm, which suits most doors. You should not fit the viewer through a thin panel but through the frame.

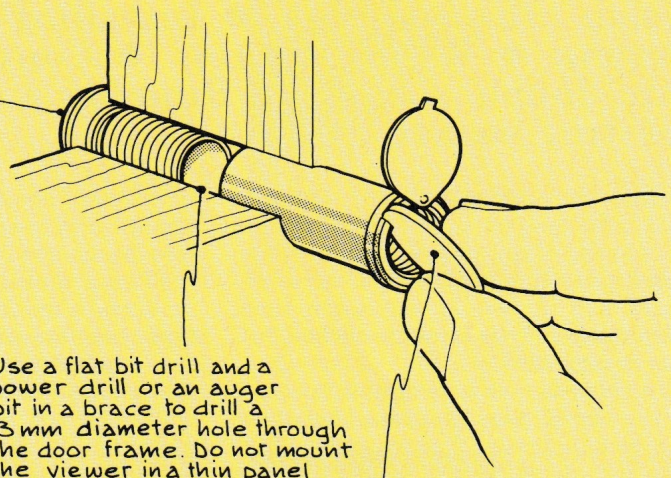
Even if you have a glass panelled door you may still need a viewer, as most of the glass used is patterned and difficult to see through properly. Fit the peephole through one of the stiles.







Insert the threaded lens piece into the hole from the outside

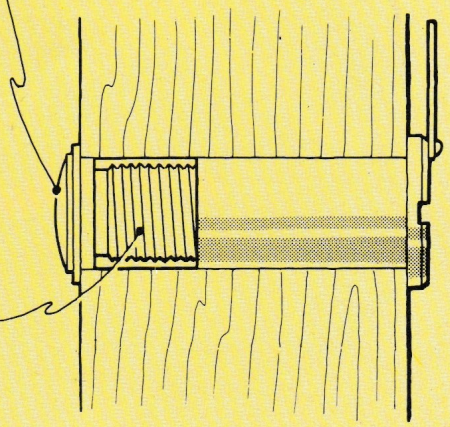


Use a flat bit drill and a power drill or an auger bit in a brace to drill a 13 mm diameter hole through the door frame. Do not mount the viewer in a thin panel

Insert the threaded collar from the inside and turn it onto the screw thread. You can use a coin in the slot provided to screw it home tightly

A viewer is simple to fit and unobtrusive. It gives you added security

Despite its small size, the lens gives you a full 170° of vision



The screw thread allows a range of adjustment depending on the thickness of your door frame

Advertising Arts

All about sockets

● Flush- and surface-mounted socket outlets ● Using plug adaptors ● Installing extra socket outlets ● Wiring sockets ● Converting single into double sockets ● Running a spur from an existing socket

Today, the average home is equipped with a far greater number of electrical appliances than was the case a few years ago. And if many of these appliances are in use at the same time, there may not be enough socket outlets to go round.

In this case, it is tempting to resort to the use of plug adaptors—but these can be dangerous. A more satisfactory solution is to install extra sockets where they are most needed.

Socket outlets

In the UK, the sockets which have three rectangular holes to accept the pins of 13 amp plugs are used on ring mains circuits and on some partially modernized radial circuits (see pages 121-125). Socket outlets with round holes for 2 amp, 5 amp and 15 amp plugs are used only on radial circuits and usually indicate that the circuit is over 30 years old. The rubber insulation on the fixed wiring in these older circuits eventually begins to break up, so a house with such a circuit may need rewiring altogether (see pages 240-244).

13 amp socket outlets can be flush- or surface-mounted. The flush-fitting type consists of a metal box—sometimes called a pattress—which houses the cables and is recessed into the wall. The box is protected by a cover plate (fig. A). Surface-mounted sockets are screwed directly to the wall but are less safe as they can be jarred loose or broken more easily (fig. B).

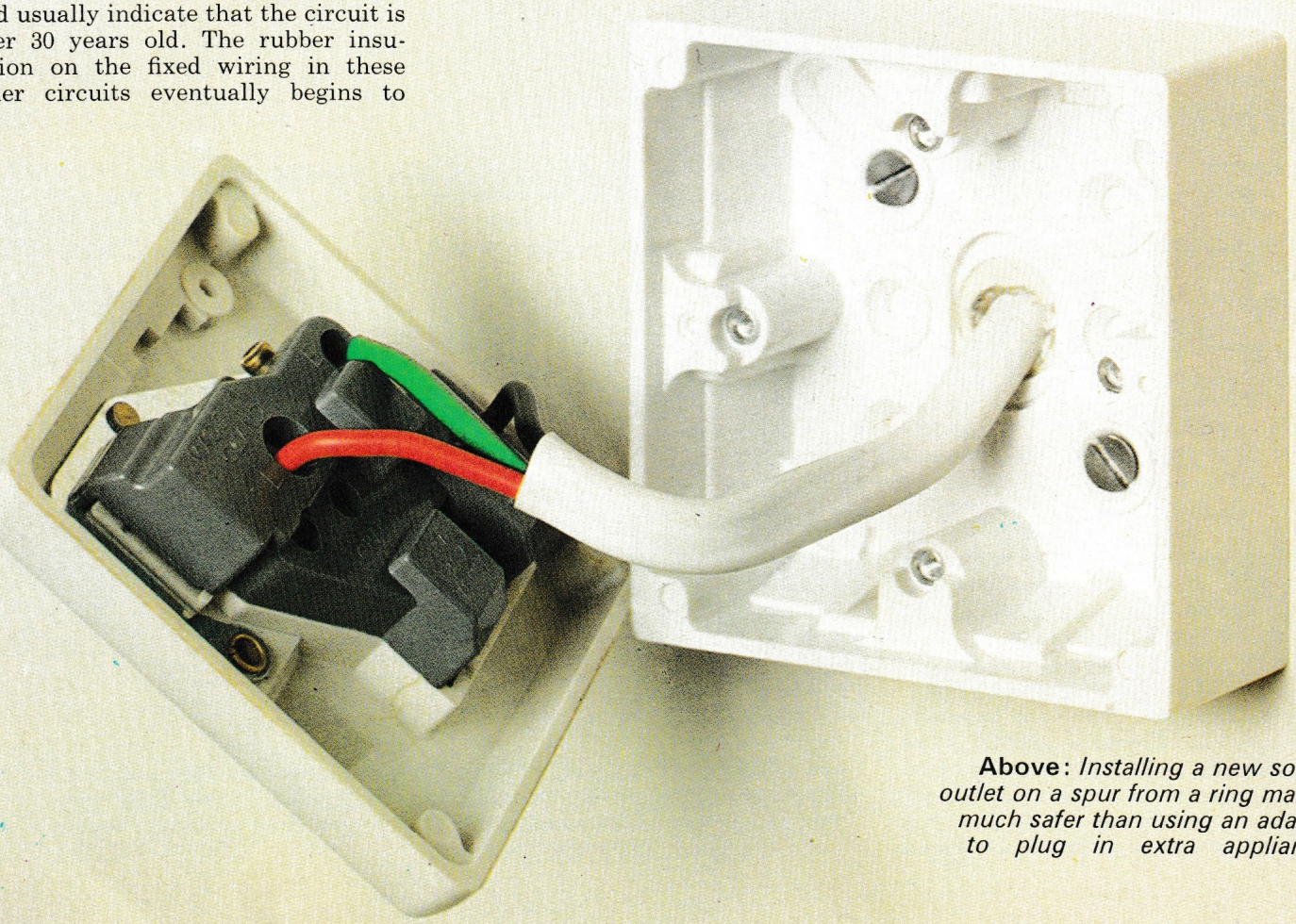
The boxes for flush-mounted sockets are usually 25-35mm deep, though some sockets can be mounted semi-flush on a 16mm deep box. These have the advantage that, when cutting the housing into the wall, you do not have to cut away much, if any, of the wall material behind the plaster.

Socket cover plates and, in the case of surface-mounted sockets, the box as well, are usually made of white plastic. But for installations in places like garages where outlets have to be more durable, sockets with metal cover plates and boxes are available.

In the UK, regulations require the live and neutral holes of 15 amp sockets to be fitted with protective shutters. These prevent such things as screwdrivers and children's fingers from being poked inside with possibly fatal results. Most sockets also have a built-in switch to minimize the danger of touching live parts when you insert or remove a plug. Some switched sockets include a neon indicator light to show when the socket is on.

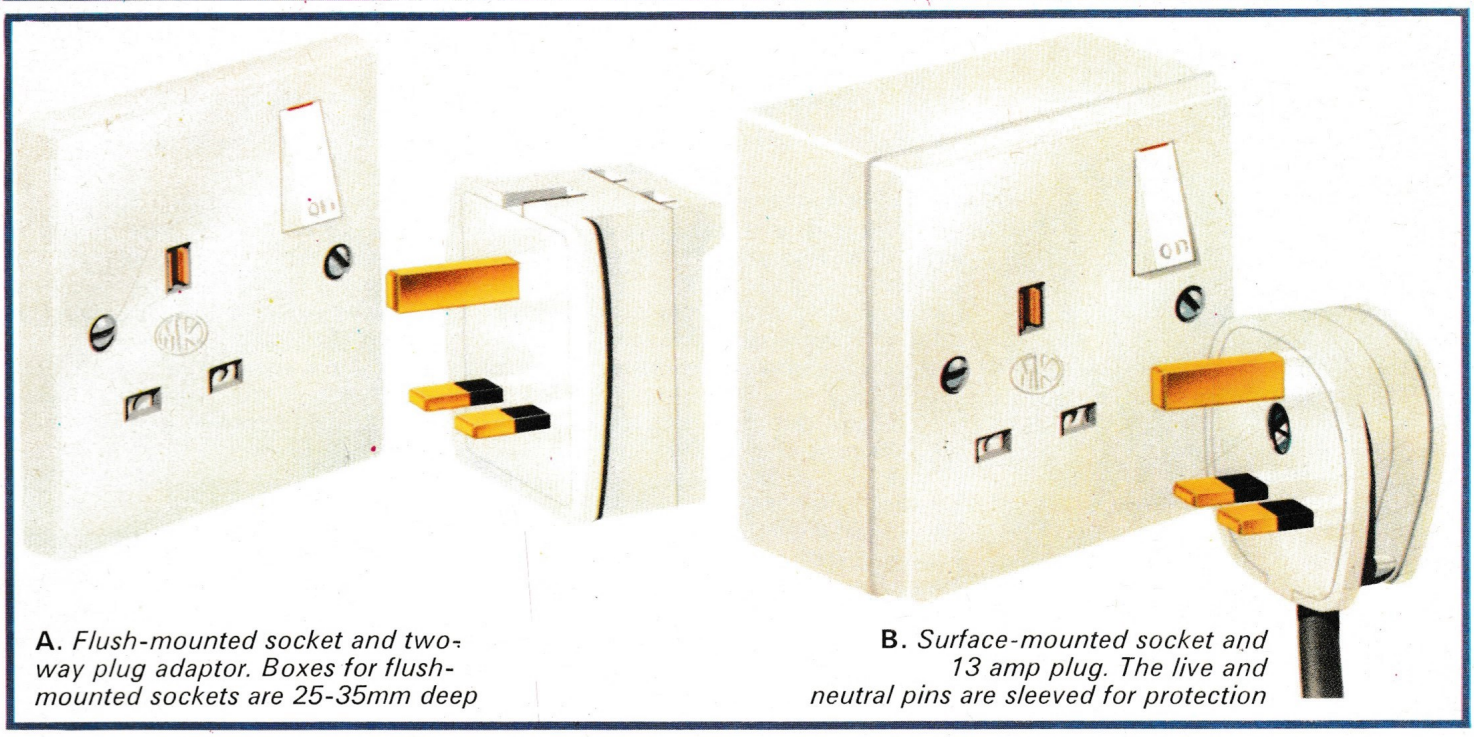
Switches are usually single-pole, cutting off the supply in the live wire only, but a few sockets have double-pole switches which cut out the neutral wire as well. This means that an appliance is totally isolated from the mains when the socket is switched off. Double-pole switches also provide some protection against incorrect wiring of the socket.

In a bathroom, where the presence of water increases the risk of electric



Ray Duns

Above: *Installing a new socket outlet on a spur from a ring main is much safer than using an adaptor to plug in extra appliances*



A. *Flush-mounted socket and two-way plug adaptor. Boxes for flush-mounted sockets are 25-35mm deep*

B. *Surface-mounted socket and 13 amp plug. The live and neutral pins are sleeved for protection*

Venner

shocks, the only sockets that can be installed are those specially designed for electric razors.

Plug adaptors

In rooms where there are too few sockets to go round, or where appliances are too far from free sockets, plug adaptors—sometimes called socket adaptors—are often used to plug two or three appliances into the same socket (fig. A).

A two-way adaptor with a fuse of the correct size is satisfactory for temporarily connecting low wattage appliances, such as table lamps or the hi-fi. But it is not advisable to use an adaptor for long periods or to plug in a high wattage appliance, such as a bar heater.

An adaptor with no fuse is particularly dangerous as it can become very hot if overloaded and pose a serious fire threat. It can also damage the insulation of any flex that is trailing over it. Three-way adaptors are also dangerous: the cluster of plugs and flex around a socket are easily tripped over and the large body of the adaptor obstructs the socket switch.

The most dangerous abuse of plug adaptors is the 'Christmas tree effect'. This describes the surprisingly common practice of plugging two, or even three, adaptors into the same socket in order to run a large number of appliances from it.

Adding socket outlets

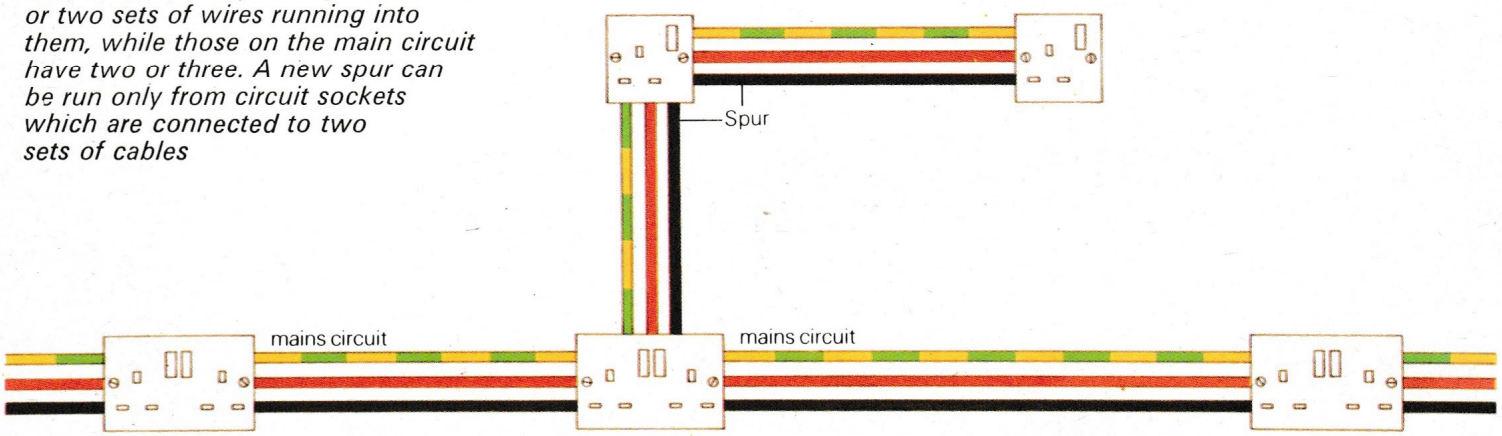
If a room has an inadequate number of socket outlets and you have a ring-main circuit, you can add extra ones without too much difficulty. An extra socket is greatly preferable to using an adaptor and, if you carry out the installation work yourself, not much more expensive.

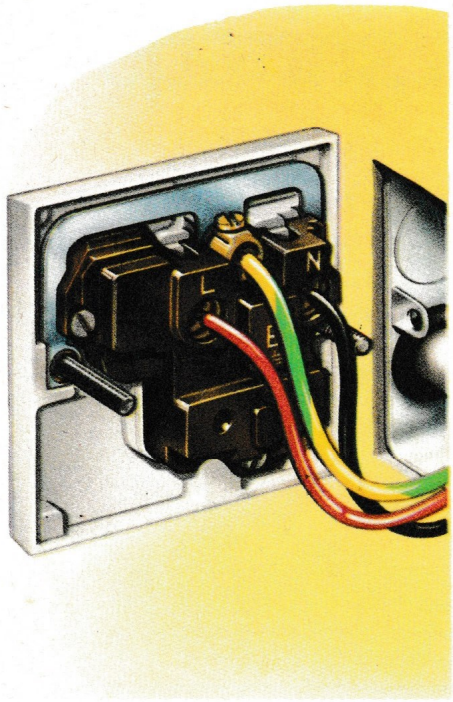
Even if you have enough sockets in your home, they may not be positioned where they are most needed. An extra socket or two gets round this problem. Remember that if you live in Australia this work must be carried out by a qualified electrician.

A ring circuit can have an unlimited number of socket outlets and ideally, each room should have about four. The circuit should serve a floor area of not more than 100m², which is more than the area of an average two-storey house. So, if you decide to install extra sockets, there is no limit to the number you can add as long as they do not extend the circuit beyond the 100m² maximum.

Sockets are almost always mounted

C. *Sockets on a spur may have one or two sets of wires running into them, while those on the main circuit have two or three. A new spur can be run only from circuit sockets which are connected to two sets of cables*





D. *Wiring up a single socket. Strip about 20mm insulation from the cores and connect to the terminals*

on a wall and should be positioned at a minimum height of 150mm above the floor level, or the working surface in a kitchen.

Though new sockets can be installed directly from the ring, it is often easier to wire it on a *spur*—an extension taken from the back of an existing socket. A spur is also useful if you wish to install a socket in a remote part of a room, but no more than two socket outlets, or one double outlet, should be wired on the same spur.

E. *Connecting a twin socket. Cover bare earth wires with lengths of PVC sleeving before connecting*

A spur from the ring main

Running a spur from an existing socket means that you can place the new socket almost anywhere you like. Another advantage is that you do not have to run cables from the ring main under floorboards. You simply feed it around a channel—or chase—cut into the wall.

To wire the spur, you need a sufficient length of 2.5mm² cable 'twin with earth' to stretch from the existing socket to the site of the new one. You also need a similar length of oval PVC conduit with securing clips and about 1m of green and yellow PVC sleeving (see pages 240-244).

Choose as your source for the spur a socket as close to the proposed site as possible. The work will also be easier if the source is a twin socket—the larger box will have more room for an extra cable.

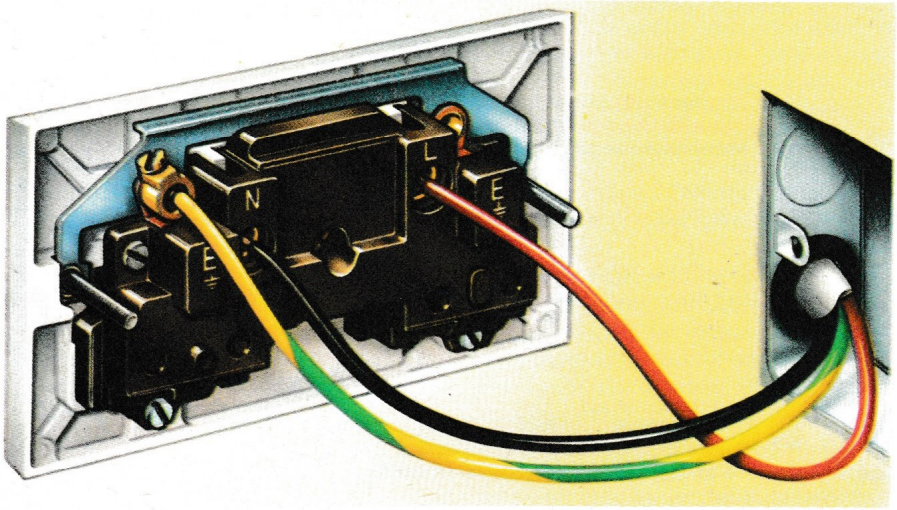
Before starting work, isolate the supply. Check on the suitability of your source socket by unscrewing the cover plate, easing it from the wall and comparing the wiring with the diagram in fig. C. If a spur has already been taken from it or the socket itself is on a spur, it is not suitable. When you have located a suitable socket, unscrew the terminal screws and re-remove and untwist the wires. Prise the box away from its recess and knock out one of the punched holes on the relevant side.

Hold the new box in position on the wall and draw around it to mark out its recess. Using a straight edge as a guide, draw two parallel lines about 25mm apart, between the new position and the existing recess, for the cable chase. Next cut the new recess and the chase with a hammer and bolster (see pages 222-227). The chase should be about 6mm deeper than the thickness of the conduit.

When the recess and chase are completed, knock out one of the punched holes in the new box and install it in its recess. Refit the box of the other socket as well, then cut the conduit to length so that it will protrude about 10mm into each box when installed in the chase. Fit the conduit, secure it with its clips, then make good the plaster.

Wait until the plaster is dry before you start wiring. Push the cable through the conduit so that about 200mm of cable protrude into each box, then remove the outer sheathing back to the edge of the box at both ends. Strip about 20mm of insulation from the live and neutral cores and sleeve the earth wires with lengths of green and yellow PVC sleeving, leaving about 20mm of bare wire protruding (see pages 240-244). Wire up the new socket cover plate as shown in fig. D and screw the plate into place.

Returning to the other box, twist the three red wires together and the three black wires together. If the original earth wires have not been sleeved, sleeve them at this stage then twist them together as well. Wire the plate up as shown in fig. E and screw it back on to the box. Turn the power on again and plug an appliance into the new socket to check that it is wired correctly.



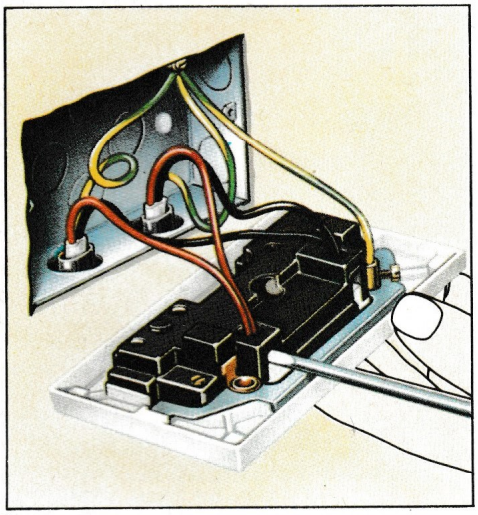
Venner

Single into twin socket

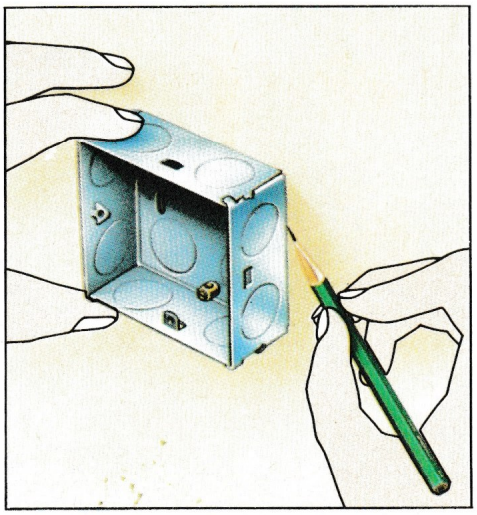
An even easier method of adding sockets is by converting single socket outlets into double ones. Where single sockets have been installed, the number of outlets in a room can be doubled, though none will be in new positions.

If you are working in an area of good natural light, turn off the electricity supply at the mains. If not, isolate the supply by removing the relevant circuit fuse and leave the lighting circuits functioning (see pages 121-125).

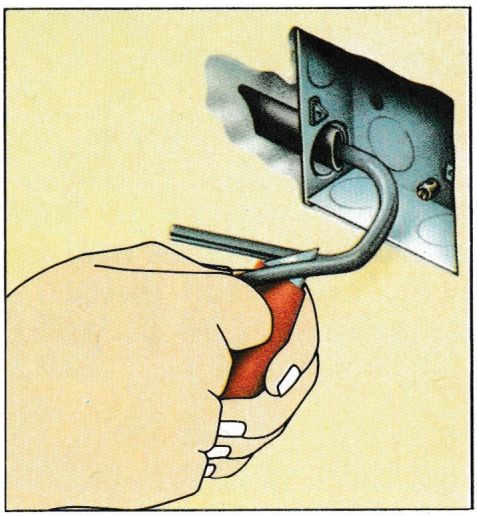
You must now find out whether or not your chosen socket is suitable for conversion. If it is a single socket on a spur, or if it is on the main circuit,



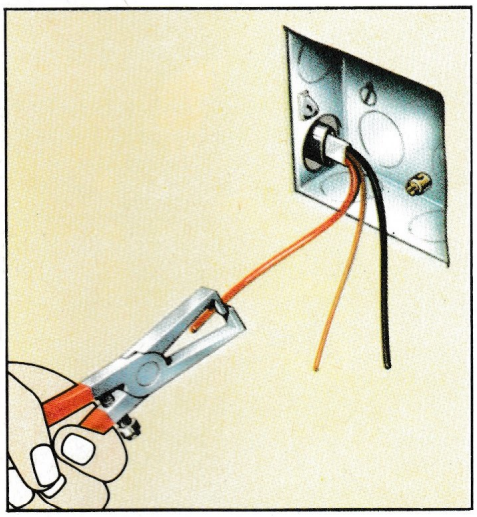
F. *Unscrew the cover of an existing socket to check that it is suitable for connecting to a spur*



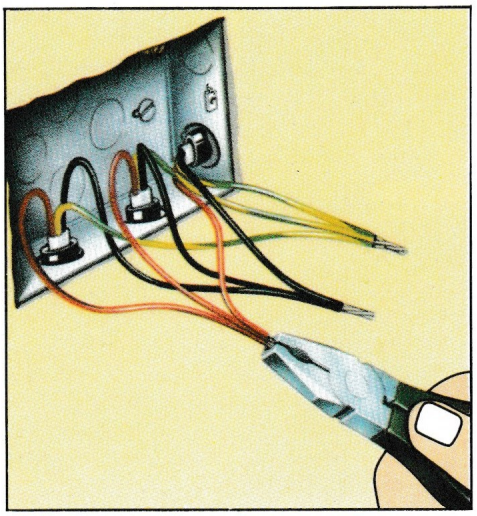
G. *Mark the position for the new spur socket, then cut the recess for the box and the cable chase*



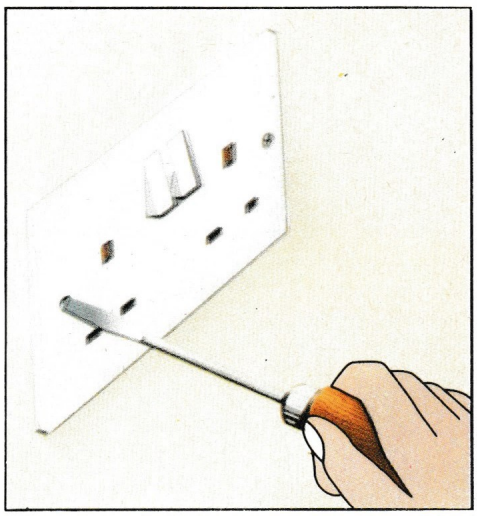
H. *Push a cable through the conduit from the original box. Remove the outer sheathing*



I. *With the sheathing removed back to the edge of the box, bare the ends of the wires with wire strippers*



J. *In the box of the original socket, twist the end of each group of wires together*



K. *Wire up the cover plate and screw it back into place on its mounting box. Then test the new socket*

the socket can be converted without any problems. But if it is one of two sockets on a spur, no more outlets can be added to the spur.

To check the position of the socket in the circuit, unscrew the cover plate, ease it from the wall and examine the wiring. Two sets of wires connected to the plate suggests that the socket is probably not a spur. To make quite sure, examine the wiring in the nearest sockets on either side. If either of these has one set, or three sets of wires, the socket is on a spur and should not be converted (fig. C). If the selected socket has three sets of wires, it is supplying a spur and can be converted without any problems.

When you have satisfied yourself that the socket outlet is suitable, undo the terminal screws holding the cable cores into the plate and gently remove the cores inside. If the live, neutral and earth cores are twisted together, untwist them and then undo the mounting screws holding the metal box into its recess. Prise the box from the recess with a screwdriver or an old chisel, taking care not to damage the cables.

To house the new, twin socket box, the recess must be extended. Mark the position on the wall and cut out the plaster and brickwork to the depth of the new box with a hammer and bolster (see pages 222-227). Knock out the punched holes in the box to accept the cables, feed these through, and position and screw the box into place using wall plugs. Twist the wires together again and wire up the twin cover plate as shown in fig. E. Screw the plate on to the box, switch on the power and test the socket.

The above procedure also applies to fitting a surface-mounted twin socket though in this case, no recess is needed—the box simply screws to the wall. If you replace a flush single socket with a surface-mounted twin, remove the old cover plate but leave the recessed box in place. You can then use its mounting brackets to secure the new socket.

A telephone table/seat unit

A telephone table which provides somewhere to sit, somewhere to keep the 'phone books and storage for odds and ends is a useful addition to any hall. This design includes all three and is quite simple to build

David Jordan

The basic material used for the telephone table is chipboard. Although it includes several cabinet-making features, like the drawers, adjustable shelf and recessed door, chipboard techniques and fittings help to keep building it simple and the cost down.

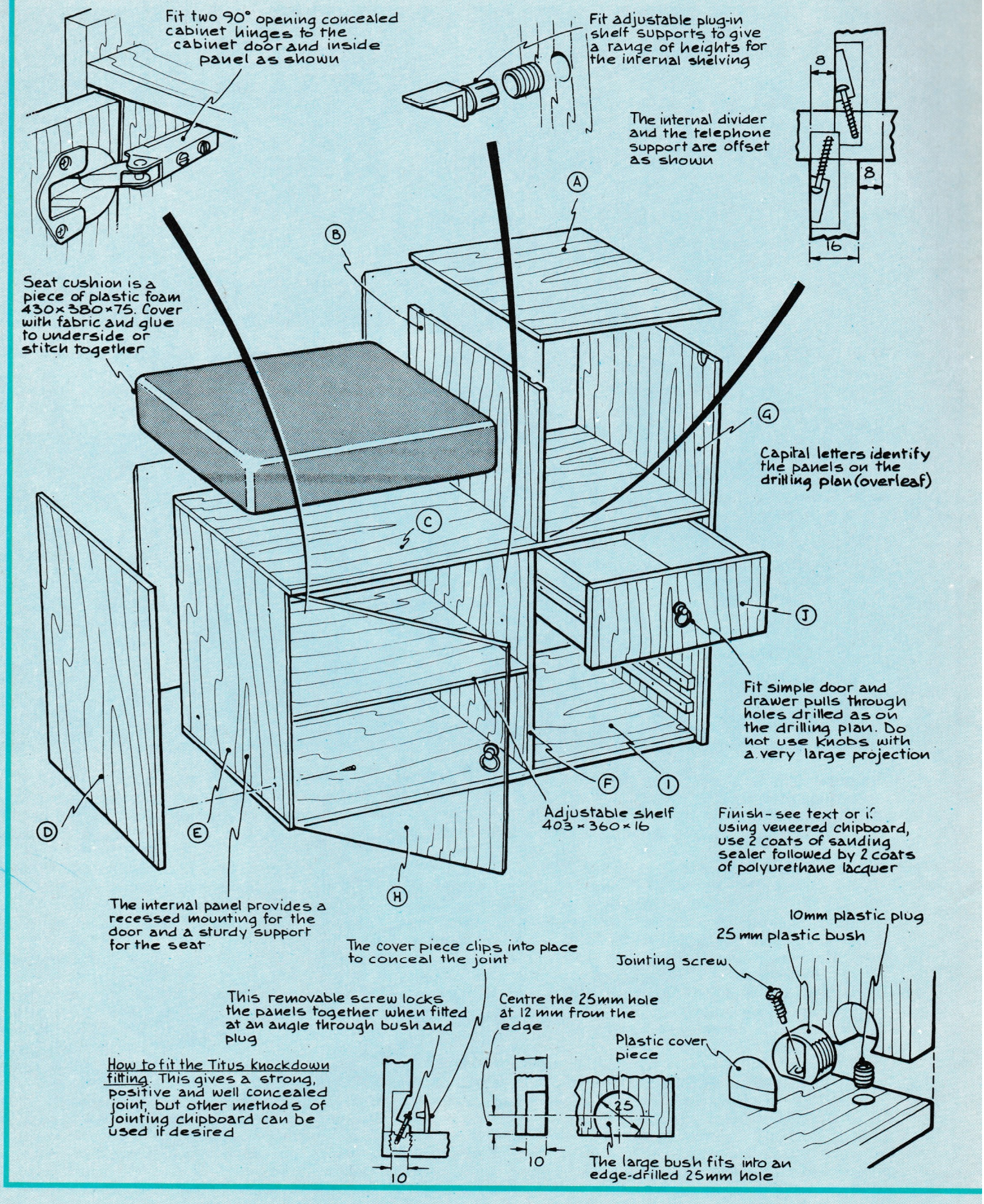
You can choose from a number of different finishes to get a look which will blend in with your decor. One possibility is to use a veneered chipboard in either a hardwood or melamine. Alternatively, as here, you can make the unit from melamine-faced chipboard and paint it to match your colour scheme. Melamine provides a good surface for painting, but you must roughen the surface slightly first to provide a key for the paint. This can be done with a fine wet and dry paper or steel wool.

The design shows constructional details for one particular knock-down fitting, but you can use almost any chipboard jointing technique providing you keep the overall dimensions the same. The advantage of the fittings used is that they are easy to take down for dismantling, but well concealed when in place.

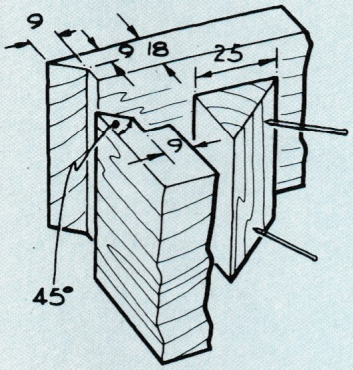
Cutting out the parts is simple, using standard width boards, but it is important that you mark and drill the holes for the fittings accurately if the finished boards are to align properly. If you are going to paint the unit, you will find that it is easier to sand the boards to give them a key before the unit is assembled. Assemble the carcase as shown, making the plinth either from solid timber, ply or blockboard. Fit the drawers, which are made from solid timber, and fit and adjust the door. Cover the cut edges with self-adhesive lipping. Make the seat from foam cut to size and cover it in a fabric that will match your floor or wall coverings.

The page opposite shows two possible variations on the basic design. If you need somewhere to keep the telephone but already have somewhere to sit—if it is in the living room, for example—you can easily convert the seat into bookshelves by continuing the end panel up. An even more ambitious project is to make a complete hall unit as shown by adding a coat stand and a tray for boots, shoes and umbrellas made from the same materials as the telephone stand.

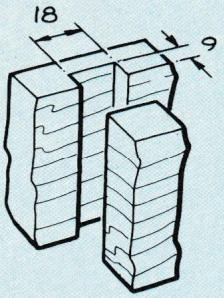
Alternative ideas


Fit two 90° opening concealed cabinet hinges to the cabinet door and inside panel as shown
Fit adjustable plug-in shelf supports to give a range of heights for the internal shelving
The internal divider and the telephone support are offset as shown
8
8
16
A
B
Seat cushion is a piece of plastic foam 430×380×75. Cover with fabric and glue to underside or stitch together
G
Capital letters identify the panels on the drilling plan (overleaf)
C
J
Fit simple door and drawer pulls through holes drilled as on the drilling plan. Do not use knobs with a very large projection
F
I
D
E
Adjustable shelf 403 × 360 × 16
Finish - see text or if using veneered chipboard, use 2 coats of sanding sealer followed by 2 coats of polyurethane lacquer
H
The internal panel provides a recessed mounting for the door and a sturdy support for the seat
10mm plastic plug
25 mm plastic bush
Jointing screw
The cover piece clips into place to conceal the joint
This removable screw locks the panels together when fitted at an angle through bush and plug
Centre the 25mm hole at 12 mm from the edge
Plastic cover piece
25
10
10
The large bush fits into an edge-drilled 25mm hole

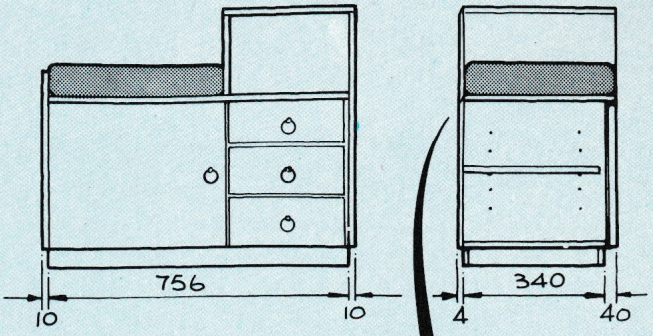
How to fit the Titus knockdown fitting. This gives a strong, positive and well concealed joint, but other methods of jointing chipboard can be used if desired



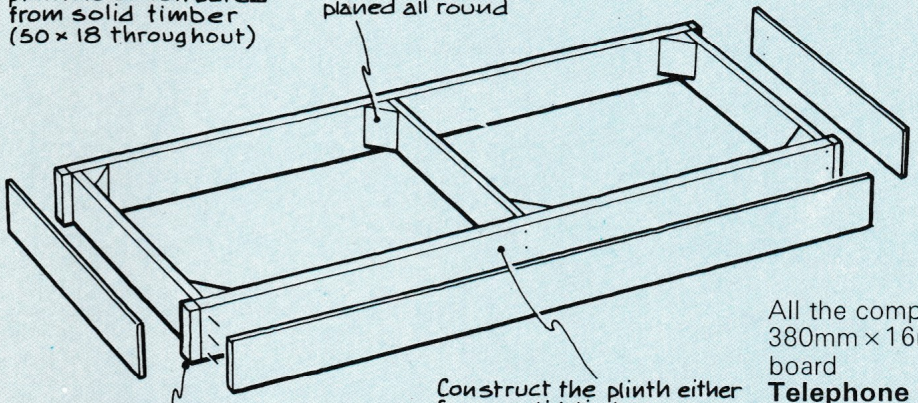
Corner joints to use if plinth is constructed from solid timber (50 × 18 throughout)



Joint to use for the centre brace if solid timber is used for the plinth

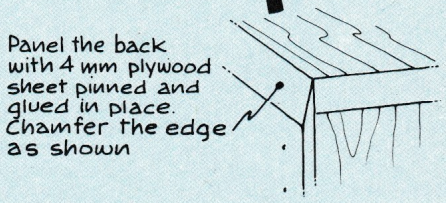


Softwood reinforcing blocks ex 50mm × 50mm planed all round



Leave 5mm waste and cut off after assembly

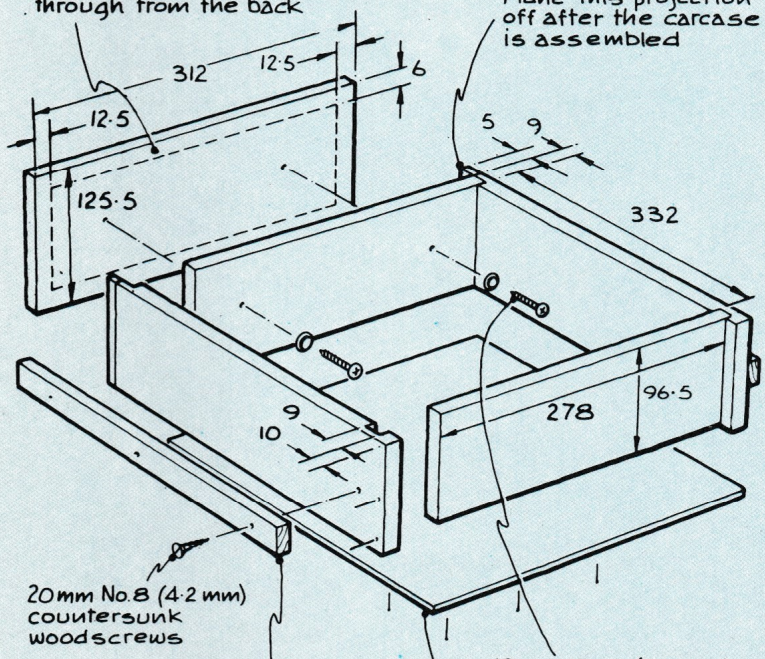
Construct the plinth either from solid timber or use blockboard or plywood covered with decorative laminate as shown



Panel the back with 4mm plywood sheet pinned and glued in place. Chamfer the edge as shown

Drawer front is glued to the carcase with contact adhesive and screwed through from the back

Plane this projection off after the carcase is assembled



20mm No.8 (4·2mm) countersunk woodscrews

Drawer runner 350mm × 25mm × 12mm hardwood glued and screwed in place on drawer centreline

Drawer joints pinned and glued using 20mm panel pins

18mm No.10 (4·9mm) chipboard screws with raised screw cups No. 10

Base 360mm × 287mm × 4mm hardboard pinned and glued in place

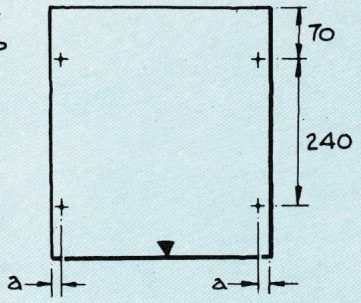
All the components identified by letter can be cut from 380mm × 16mm veneered or melamine-faced chipboard

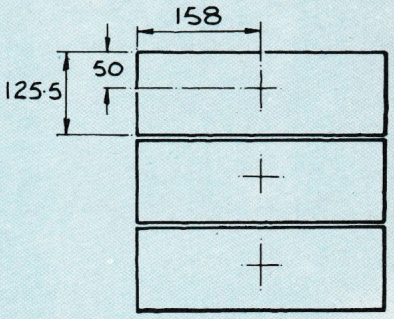
Telephone table (A): 380mm × 330mm × 16mm
Telephone support (B): 380mm × 223mm × 16mm
Seat base (C): 744mm × 380mm × 16mm
End panel (D): 447.5mm × 380mm × 16mm
Seat support (E): 364mm × 362mm × 16mm
Seat support (F): 364mm × 362mm × 16mm
End panel (G): 619mm × 380mm × 16mm
Cabinet door (H): 425mm × 380mm × 16mm
Base panel (I): 744mm × 362mm × 16mm
Drawer fronts (J): 3 No. 312mm × 125.5mm × 16mm
Back panel: 776mm × 635mm × 4mm plywood faced to match veneer if used. Trim to shape when fitting
Shelf: 403mm × 360mm × 16mm veneered chipboard
Plinth front and back: 2 No. 763mm × 50mm × 18mm blockboard, plywood or planed all round softwood
Plinth ends: 2 No. 320mm × 50mm × 18mm (materials as plinth front and back)
Plinth centre brace: 320mm × 45mm × 18mm (materials as plinth front and back)
Plinth reinforcing blocks: 6 No. 50mm × 50mm × 45mm (ex 50mm × 50mm planed all round softwood)
Drawer sides: 6 No. 360mm × 96.5mm × 9mm ply
Drawer ends: 6 No. 278mm × 96.5mm × 9mm ply
Drawer bases: 3 No. 360mm × 287mm × 4mm ply
Drawer runners: 18 No. 350mm × 25mm × 12mm hardboard
Cushion: 430mm × 380mm × 75mm high density foam and fabric to cover
Joint fittings: 20 No. 'Titus' knockdown fittings
Drawer pulls: 4 No. to suit
Hinges: 2 No. 90° concealed cabinet hinges
Miscellaneous: Iron-on veneer edging strip; PVA adhesive; contact adhesive; panel pins and screws as required; plastic laminate for plinth (optional) to dimensions of plinth

Advertising Arts

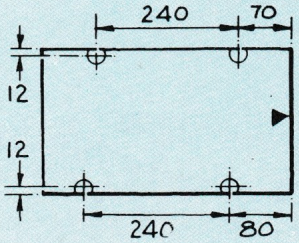
Telephone table
Ⓐ 380×330×16

	Board thickness in mm				
	15	16	16·5	17	18
a	10	11	11·5	12	13
b	374·5	375·5	376	377	378
c	310	311	311·5	312	313
d	302	303	303·5	304	305





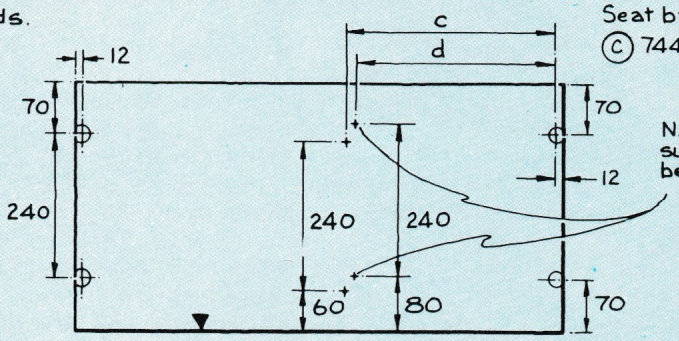
Drawer fronts Ⓙ
312×125·5×16



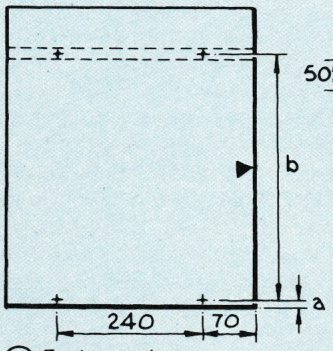
Telephone support
Ⓑ 380×223×16

This page shows the drilling plans for the main boards used to construct the table, including the holes needed for the knockdown fittings. See preceding pages for details of the fittings. N.B. Veneered or melamine faced boards vary in thickness slightly. Check the thickness of your boards carefully and use the table above to give you the appropriate measurements for the fittings. Measure from the back edge of boards. Unless otherwise stated, drilling plans show inside surface of the board

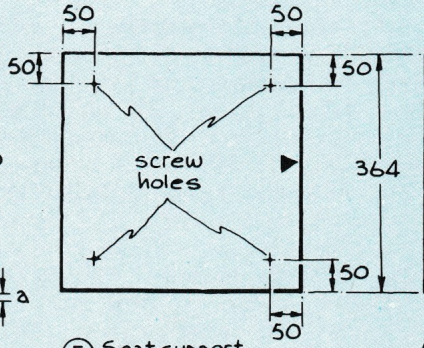
Seat base
Ⓒ 744×380×16



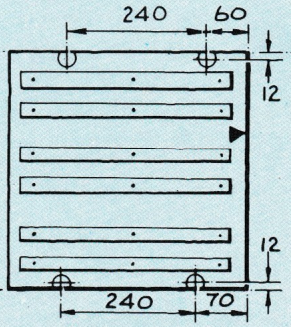
N.B. This view shows inside surface. These two holes must be drilled on the reverse side



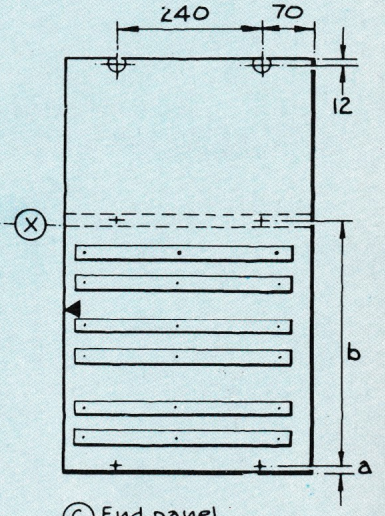
Ⓓ End panel
447·5×380×16



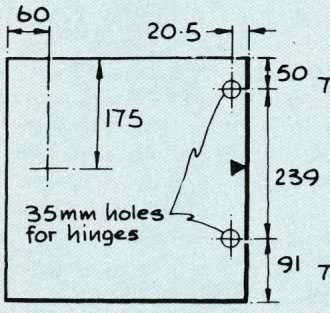
Ⓔ Seat support
364×362×16



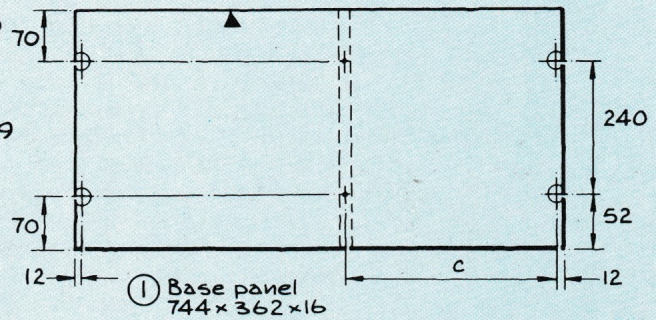
Ⓕ Seat support
364×362×16



Ⓖ End panel
619×380×16

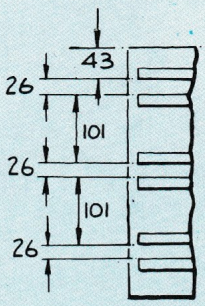


Ⓗ Cabinet door
425×380×16



Ⓘ Base panel
744×362×16

▲ Indicates back edge of panel



Measure out positions from point Ⓧ

Drawer runners are 350×25×12 hardwood glued and screwed inside panels using 22mm No.8 countersunk wood chip screws

Advertising Arts

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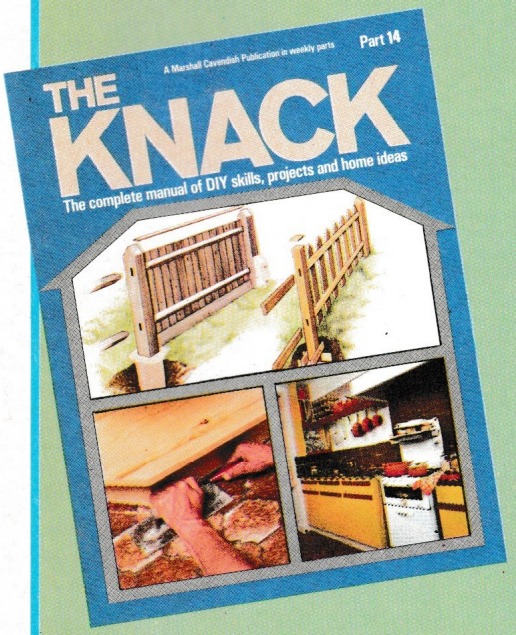
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Laying vinyl and cork: Assuming you have prepared the floor, the second part of our two-part series takes you step-by-step through laying cork and vinyl tiles and vinyl sheet

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Working with chipboard: One of the most popular modern building materials, chipboard in all its forms has hundreds of uses around the home. We show some of the useful hints you need to know when working with it

Where to buy it—UK

Basic blockbuilding Pages 345-351
Further advice on concrete blocks from:
Cement and Concrete Association, Wexham Springs, Slough, Berks SL3 6PL
Halls, stairs and landings Pages 357-363
Fish-eye lens for peep-hole from:
Chubb & Sons Lock & Safe Co. Ltd., 14-22 Tottenham Court Rd., London W1P 0AA
Telephone table/seat unit Page 368
Fittings from:
Woodfit Ltd., Whittle Low Mill, Chorley, Lancs. PR6 7HB

Australia

Substitute measurements for calculating quantities of building blocks, p. 346. Block of nominal size 400mm × 200mm × 200mm in fact measures 390mm × 190mm × 190mm. Most common sizes are: Height—90mm, 190mm. Length—90mm, 190mm, 290mm, 390mm. Width—90mm, 140mm, 190mm, 290mm.

Acknowledgements

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Kitchen accessories from:
David Mellor, Sloane Square, London SW6

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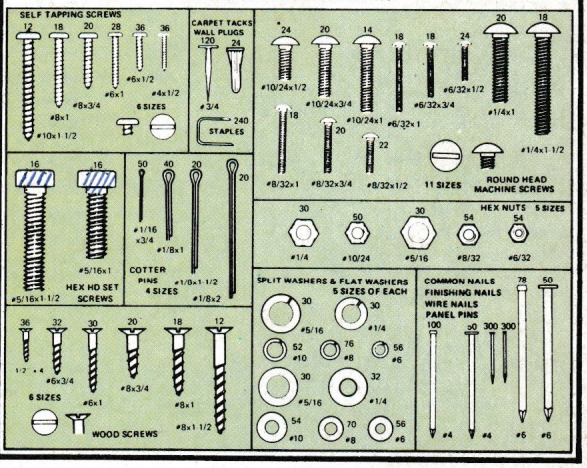

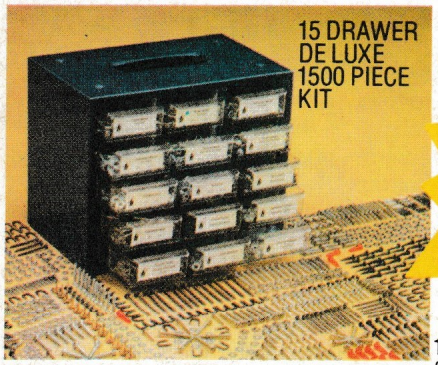

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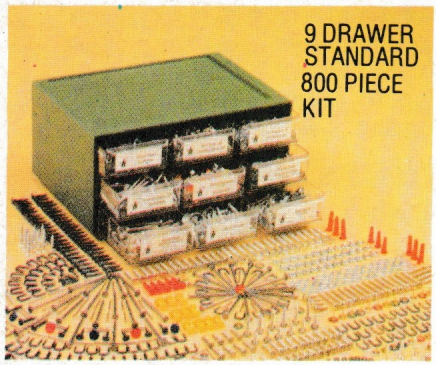

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